

PENNSYLVANIA-NEW JERSEY-MARYLAND INTERCONNECTION  
955 JEFFERSON AVENUE  
VALLEY FORGE CORPORATE CENTER  
NORRISTOWN, PA 19403-2497  
(215) 666-8800

20 49975  
PJM file, on file

EXPRESS MAIL - B 38773109

June 14, 1988

RECEIVED  
(12/1)

Ms. Suzanne Billings  
U. S. Environmental Protection Agency, Region III  
PA CERCLA Remedial Enforcement Section (3HW12)  
841 Chestnut Building, 6th Floor  
Philadelphia, PA 19107

Dear Ms. Billings:

This letter responds to Bruce Smith's letter dated March 31, 1988 to the PJM Interconnection (Philadelphia Electric Co. (PECo), Agent) under an extended June 15, 1988 response deadline as arranged with you.

Description of PJM Control Center Operations

Operations at the PJM Control Center are not those of a typical industrial operation. Rather, approximately 120 staff personnel work in a computerized office environment dedicated to coordinating the generation and transmission of electricity to meet electric load in the middle Atlantic states in a reliable and economic manner.

Re: Question(s)

1, 2, 3 Attached are two listings of hazardous substances transported to, stored in, and used at our facility, with copies of Material Safety Data Sheets (MSDS's) which we have on file. Attachment "A" consists of substances we believe apply under EPA criteria. Attachment "B" consists of products identified under the Pennsylvania Right-to-Know criteria. These products are stored only for use.

4, 5, 6 Attachment "C" consists of correspondence regarding our disposal of two transformers containing PCB's in 1982.

7, 8 A lease agreement dated April 1, 1969 was executed between Circuit Leasing Company and PECo for our premises at 955 Jefferson Avenue, and is still in effect. We control the property and facility.

A second office lease agreement dated February 1986 was executed between PECo and Two Valley Forge Eisenhower Associates for general office purposes for our premises at Pinebrook on 2550 Eisenhower Avenue in the Valley Forge Corporate Center. In May 1987, the ownership changed to Mortgage and Realty Trust. The lease is still in effect.

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-continued-

Public Service Electric and Gas Company	General Public Utilities Corporation	Potomac Electric Power Company
Philadelphia Electric Company	Jersey Central Power & Light Company	Atlantic City Electric Company
Pennsylvania Power & Light Company	Metropolitan Edison Company	Delmarva Power & Light Company
Baltimore Gas and Electric Company	Pennsylvania Electric Company	

Please contact William J. Bryson (666-8888) or me (666-8831) with any questions.

Very truly yours,



M. H. Porter  
Controller

Attachments

MHP/las:6476G

- xc: T. R. Woodward (w/o attachments)
- C. F. Doll (w/o attachments)
- C. B. Woodward (w/o attachments)
- K. W. Laughlin (w/o attachments)
- D. S. Frieman (w/o attachments)
- W. J. Bryson
- W. B. Willsey, PECO Director, Environmental Affairs

AR200736

<u>TRADE NAME</u>	<u>MANUFACTURER</u>	<u>CONTAINER SIZE</u>	<u>CONTAINERS STORED</u>	<u>STATE</u>	<u>STORAGE</u>
Chapco 116 Bond Solvent	Chicago Adhesive Products Co.	1 quart	1-2	Liquid	Locked Metal Cabinet
Dazzle Metal Cleaner & Polish	Rite-Off, Inc.	19 ounce Aerosol can	2	Liquid	Locked Metal Cabinet
Bestline Solvent & Thinner	Union Rubber, Inc.	16 ounce can	1	Liquid	Locked Metal Cabinet
Instant Kleen-All	Tech Spray	16 ounce Aerosol can	2	Liquid	Locked Metal Cabinet
Lectra Celan Aerosol #2018	C.R.C. Chemicals	19 ounce can	4	Liquid	Locked Metal Cabinet
Lubrisil Aerosol Lubricant	Penetone Corp.	12 ounce can	1	Liquid	Locked Metal Cabinet
1,1,1 Trichloroethane	Globe Solvents Co.	1 gal. can	2	Liquid	Locked Metal Cabinet
Electrical Quality Silicone Aerosol	CRC Chemicals	19 ounce Aerosol can	1	Liquid	Locked Metal Cabinet
Silazene Silicone Spray #7499	Chem-1-Cap	22.5 ounce Aerosol can	3	Liquid	Locked Metal Cabinet
PACO Solvent (Denatured Alcohol)	Publicker Industries	1 gal. can	1	Liquid	Locked Metal Cabinet
M-300 Oil Free Dispersing Cleaner	M-Oil-Free Co.	1 gal. plastic bottle	1	Liquid	Locked Metal Cabinet

RECEIVED  
6/14/88

RR2  
DOB/las:6479G  
6/14/88

737

CYANAMID

MATERIAL SAFETY DATA SHEET

26  
Interconnection  
PAGE 1 of 5  
SHEET NO. 0087-01

MANUFACTURER: AMERICAN CYANAMID COMPANY  
WAYNE, NEW JERSEY 07470

CAS NO. 000121-75-5  
DATE: 10/12/82

EMERGENCY TELEPHONE: (201) 835-3100

I. PRODUCT IDENTIFICATION

TRADE NAME: MALATHION ULV<sup>®</sup> Concentrate Insecticide

WARNING STATEMENT(S):  
KEEP OUT OF REACH OF CHILDREN.  
HARMFUL BY SWALLOWING, INHALATION, OR SKIN CONTACT.

ORIGINAL  
(Red)

SYNONYMS:

CYTHON<sup>®</sup>: O,O-Dimethyl phosphorodithioate of diethyl mercaptosuccinate;  
Butanedioic acid, [(Dimethoxyphosphinothioyl)thio], Diethyl Ester;  
S-[1,2-Bis(ethoxycarbonyl)ethyl]O,O-dimethyl phosphorodithioate

CHEMICAL FAMILY: Organophosphate

MOLECULAR FORMULA: C<sub>10</sub>H<sub>19</sub>O<sub>6</sub>PS<sub>2</sub>

MOLECULAR WGT: 330.36

II. HAZARDOUS INGREDIENTS

COMPONENT	CAS. NO.	%	TWA/CEILING	REFERENCE
MALATHION	000121-75-5	91-96	15mg/m <sup>3</sup> 8hrTWA 10mg/m <sup>3</sup> 8hrTWA	OSHA ACGIH-80

III. PHYSICAL PROPERTIES

APPEARANCE AND ODOR: Clear, brown-to-colorless liquid; characteristic mercaptan odor.

BOILING POINT: 312.8° F 156° C @ 0.7mm/Hg MELTING POINT: 37.13° F 2.85° C

VAPOR PRESSURE: 0.00004mmHg @ 30° C SPECIFIC GRAVITY: 1.23 @ 25° C

VAPOR DENSITY: Not Applicable % VOLATILE (BY VOL.): Negligible

OCTANOL/H<sub>2</sub>O PARTITION COEF.: 777 EVAPORATION RATE: Negligible

SATURATION IN AIR (BY VOL.): Not Available

PH: In water it is neutral or slightly acidic. Hydrolysis with standing will become more acidic.

SOLUBILITY IN WATER: 145 ppm @ 25° C

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**IV. FIRE AND EXPLOSION HAZARD DATA**

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FLASH POINT: >325° F >162.7° C FLAMMABLE LIMITS: Not Applicable  
(METHOD) Tag Open Cup

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AUTOIGNITION TEMP.: Not Available  
DECOMPOSITION TEMP.: Slow decomposition above 48.8° C (120° F)

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**FIRE EXTINGUISHING MEDIA**

Water, foam, carbon dioxide or dry chemical.

**FIRE CONTROL TACTICS:**

Wear self-contained, positive pressure breathing apparatus and full firefighting protective clothing. Alert medical personnel to be ready to treat poisoning cases. Decontaminate when leaving fire area. Keep unnecessary people away, fight fire upwind. Dike area of fire to prevent pesticide runoff. Use a little water as possible. Hot containers may explode, use water to keep containers cool.

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**V. NFPA HAZARD RATING**

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Hazard Rating Not Assigned By NFPA

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**VI. REACTIVITY DATA**

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STABILITY: STABLE @ 25° C  
UNSTABLE @ > 48.8° C

POLYMERIZATION: WILL NOT OCCUR

CONDITIONS TO AVOID:  
Storage at 50-115° C leads to non-hazardous decomposition.  
Heating at > 150° C causes rapid decomposition.  
Reactivity with strong base may generate excessive heat.  
Unstable @ pH 12.

CONDITIONS TO AVOID:  
Temperatures above 120° F (48.8° C).  
Will decompose to a jelly @ 160° C.

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**INCOMPATIBLE MATERIALS:**  
Strong alkalies and strong oxidizers.

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**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition may produce hydrogen sulfide, carbon monoxide, carbon dioxide, sulfur dioxide, and/or phosphorous trioxide, methyl mercaptan, dimethyl sulfide and other organic decomposition products.

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**VII. HEALTH HAZARD INFORMATION**

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**TOXICITY DATA, EFFECTS OF OVEREXPOSURE, EMERGENCY & FIRST AID PROCEDURES**

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**INGESTION TOXICITY:**

Acute oral LD50 rat - range 1000-2800mg/kg.

**FIRST AID:**

Induce vomiting by giving 2 glasses of water and (a) stimulating back of throat with fingers or (b) giving syrup of ipicac 30ml. Never give anything by mouth or induce vomiting in an unconscious person. Obtain medical care without delay. Give oxygen if person has difficulty breathing. Give artificial respiration if person is not breathing.

**SKIN CONTACT:**

Slightly irritating to rabbit skin. Acute dermal LD50 rabbit - 4100mg/kg.

**FIRST AID:**

Remove contaminated clothing without delay. Wear impervious gloves. Cleanse skin thoroughly with soap and water. Do not omit cleansing hair or under fingernails if contaminated. Do not reuse clothing without laundering. Do not reuse contaminated leatherware. Obtain medical care without delay. Give oxygen if person has difficulty breathing. Give artificial respiration if person is not breathing.

**EYE CONTACT:**

Non-irritating to rabbit eyes.

**FIRST AID:**

Immediately irrigate with plenty of water for 15 minutes.

**INHALATION TOXICITY:**

Inhalation exposure is not likely to produce any significant effects due to the low vapor pressure of the product. Overexposure to an aerosol may produce cholinesterase depression.

**FIRST AID:**

Remove from exposure. Administer oxygen if there is difficulty in breathing. Obtain medical care without delay.

**NOTES TO PHYSICIAN:**

Parasympathomimetic agent. Erythrocyte cholinesterase activity should be measured. Signs and symptoms include, progressively: headache, lightheadedness, miosis with loss of accommodation, nausea, vomiting, hyperhidrosis, muscle fasciculations, sphincter failure, coma, and death. If signs or symptoms are present, give atropine, 4mg, I.V.. Repeat every 10 minutes until atropinized. Observe for at least 48 hours. Opiates and phenothiazine tranquilizers are contraindicated.

AR200740

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**VIII. EXPOSURE CONTROL METHODS**

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Skin or eye contact should be prevented by wearing rubber gloves, apron and boots with chemical splash goggles. A long sleeve shirt and full length pants (or coveralls) should also be worn. Wash hands with soap and water before eating, smoking, or using the toilet. Shower after completion of work shift. Launder clothing prior to reuse.

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**IX. SPILL OR LEAK PROCEDURES**

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**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:**

Wear rubber boots, gloves, and splash goggles. Absorb spilled material with clay or soda ash. Sweep up and place in closed container. Treat contaminated area with a full-strength liquid household chlorine bleach, let stand for 15 minutes and repeat procedure. Flush area with water.

**WASTE DISPOSAL:**

Dispose of waste materials only at state or federally approved disposal sites.

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**X. SPECIAL PRECAUTIONS**

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**HANDLING AND STORAGE/OTHER:**

Because of this material's flash point, areas containing this material should conform to the codes (such as, NFPA 30 and NFPA 70) governing Class III Combustible Liquids.

Segregate from incompatible materials listed in Section VI.

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AR200741

## XIII. APPENDIX

ORIGINAL  
(Red)

•REGISTERED TRADEMRK OF THE AMERICAN CYANAMID COMPANY

## SOURCE AND DATE OF INFORMATION

: 10/12/82

CYANAMID AGRICULTURAL GROUP  
WAYNE, NEW JERSEY

SHEET NO. 0087-01

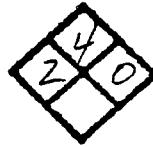
information and statements herein are believed to be reliable but are not  
to be construed as a warranty or representation for which we assume legal re-  
sponsibility. Users should undertake sufficient verification and testing to  
determine the suitability for their own particular purpose of any information  
products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR  
USE IS MADE.

AR200742

MATERIAL SAFETY DATA SHEET

MANUFACTURER'S NAME:

PERVOE-PACIFIC CO.  
 2424 MERCED ST.  
 SAN LEANDRO CA 94577



PPE E  
 UN 1263

DATE OF PREPARATION: 10-02-1985

EMERGENCY TELEPHONE NO.:

(415) 351-4860

INFORMATION TELEPHONE NO.:

(415) 351-4860

ORIS  
(Red)

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NUMBER: 9  
 PRODUCT NAME: MARKING PAINTS - ALL COLORS  
 PRODUCT CLASS: AEROSOL PAINT

**RECEIVED**  
 JUL 16 1985  
 C. MURAWICZYK

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENT	CAS NUMBER	WEIGHT PERCENT	OCCUPATIONAL EXPOSURE LIMITS	VAPOR PRESSURE mm Hg @ TEMP
S 01 MINERAL SPIRITS	8032 32 4	< 5.0%	500 PPM	2.0 20C
S 02 V.M.&P. NAPHTHA	8030306	< 5.0%	300 PPM	15.0 37C
S 11 TOLUENE	108883	20	200 PPM	21.9 20C
S 12 HEXANE	110543	15	500 PPM	125.0 20C
S 13 XYLENE	1330207	< 5.0%	100 PPM	19.4 20C
R 1A PROPANE	74 98 6	10	800 PPM	5689.0 20C
R 1B ISOBUTANE	75 28 5	15	800 PPM	1551.0 20C

SECTION III - PHYSICAL DATA

BOILING RANGE: -10 F deg.(est)      VAPOR DENSITY: HEAVIER THAN AIR  
 EVAPORATION RATE: FASTER THAN ETHER      % VOLATILE VOLUME: 83.89 WT/GAL: 6.91

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**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**  
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**FLAMMABILITY CLASSIFICATION:** Flammable Liquid - Class IA

**FLASH POINT:** -19 F deg. (est.)                      **LEL:** 0.9

**EXTINGUISHING MEDIA:** FOAM, ALCOHOL FOAM, CO2, DRY CHEMICAL, WATER FOG,

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

CLOSED CONTAINERS MAY EXPLODE DUE TO BUILD UP OF PRESSURE FROM EXTREME HEAT OR FIRE. AEROSOL SPRAY IS EXTREMELY FLAMMABLE.

**SPECIAL FIREFIGHTING PROCEDURES:**

WATER SPRAY MAY BE INEFFECTIVE, BUT WATER SPRAY MAY BE USED TO COOL CONTAINERS EXPOSED TO HEAT OR FIRE TO PREVENT PRESSURE BUILD UP.

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**SECTION V - HEALTH HAZARD DATA**  
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**EFFECTS OF OVEREXPOSURE:**

INHALATION: ANESTHETIC. IRRITATION OF THE RESPIRATORY TRACT, OR NERVOUS SYSTEM DEPRESSION-CHARACTERIZED BY HEADACHE, DIZZINESS, NAUSEA, OR POSSIBLE UNCONSCIOUSNESS. SKIN OR EYE CONTACT: PRIMARY IRRITATION. PROLONGED OR REPEATED CONTACT TO SKIN MAY CAUSE DERMATITIS - EXERCISE DUE CARE

**MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE:**

NONE KNOWN

**PRIMARY ROUTE(S) OF ENTRY:** DERMAL, INHALATION,

**EMERGENCY AND FIRST AID PROCEDURES:**

VAPORS: REMOVE FROM EXPOSURE AND RESTORE BREATHING, SEEK MEDICAL ATTENTION.  
SPASH: [SKIN] WASH AFFECTED AREA, REMOVE CONTAMINATED CLOTHING, SEE PHYSICIAN IF ANY IRRITATION PERSISTS.  
SPASH: [EYES] FLUSH IMMEDIATELY WITH WATER FOR 15 MINUTES AND TAKE TO A PHYSICIAN.

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**SECTION VI - REACTIVITY DATA**  
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**STABILITY:** STABLE

**HAZARDOUS POLYMERIZATION:** WILL NOT OCCUR

**HAZARDOUS DECOMPOSITION PRODUCTS:**

CARBON MONOXIDE AND CARBON DIOXIDE

**CONDITIONS TO AVOID:**

HIGH TEMPERATURES

**INCOMPATIBILITY (MATERIALS TO AVOID):**

STRONG OXIDIZING AGENTS

ORIGINAL  
(2/6/71)

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9-3  
ORIGINAL  
(Red)

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**SECTION VII - SPILL OR LEAK PROCEDURES**

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**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:**

REMOVE ALL SOURCES OF IGNITION: FLAMES, SPARKS, STATIC ELECTRICITY & ELECTRICAL  
VENTILATE AREA AND SOAK UP WITH INERT ABSORBENT USING NON-SPARKING TYPE TOOLS.

**WASTE DISPOSAL METHOD:**

DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.  
DO NOT INCINERATE CLOSED CONTAINERS.

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**SECTION VIII - SAFE HANDLING AND USE INFORMATION**

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**RESPIRATORY PROTECTION:**

OUTDOORS: APPROVED MECHANICAL PARTICULATE FILTER TO REMOVE AIRBORNE OVERSPRAY  
IN RESTRICTED AREAS WITH POOR VENTILATION USE APPROVED CHEMICAL-MECHANICAL  
RESPIRATOR DESIGNED FOR USE WITH ORGANIC VAPORS.

**VENTILATION:**

ALL APPLICATION AREAS SHOULD BE ADEQUATELY VENTILATED IN ORDER TO KEEP SOLVENT  
VAPORS BELOW T.L.V.

**PROTECTIVE GLOVES:**

IMMEDIATELY RESISTANT GLOVES SHOULD BE USED IF CONTACT IS LIKELY.

**EYE PROTECTION:**

SAFETY GLASSES WITH SIDE SHIELDS IS RECOMMENDED TO PREVENT EYE CONTACT.

**OTHER PROTECTIVE EQUIPMENT:**

**HYGIENIC PRACTICES:**

AVOID PROLONGED OR REPEATED CONTACT. DO NOT BREATHE VAPORS.

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**SECTION IX - SPECIAL PRECAUTIONS**

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**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:**

DO NOT STORE ABOVE 120 DEG. F. DO NOT STORE OR USE NEAR HEAT, SPARKS, OR FLAME

**OTHER PRECAUTIONS:**

DO NOT GET IN EYES. DO NOT BREATHE VAPORS. AVOID SKIN CONTACT. DO NOT TAKE  
INTERNALLY. SMOKING WHILE USING THIS PRODUCT MUST BE STRICTLY PROHIBITED.

AR200745

ORIGINAL  
(Red)

# Material Safety Data Sheet

## IDENTIFICATION

RECEIVED

Name:  
MS-220 Aero-Duster

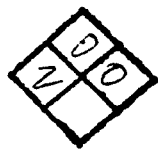
JUL 31 1986

Chemical Family:  
Halogenated Hydrocarbon

Synonyms:  
Freon\* 12, FC-12  
Dymel\* 12,  
Dichlorodifluoromethane

C. MURAWCZYK

Formula:  
CCl<sub>2</sub>F<sub>2</sub>



CAS Name:  
Methane, Dichlorodifluoro

CAS Registry No.  
75-71-8

PPE 8  
UN 1956

Manufacturer/Distributor:  
Miller-Stephenson Chemical Co.

Medical Emergency Phone:  
(203) 797-2212

Address:  
George Washington Highway  
Danbury, Conn. 06810

Transportation Emergency Phone:  
(800) 424-9300

## PHYSICAL DATA

Boiling Point (F): -21.6  
Density: 1.311 g/cc @77 F  
Vapor Density (Air = 1): 4.2

Percent volatile by Volume: 100  
Vapor Pressure: 80 psig @77 F  
Solubility in H<sub>2</sub>O: 0.028% by wt @  
77 F.

pH Information: Neutral

Evaporation Rate (ether=1): >8

Form: Liquefied Gas

Appearance: Clear

Color: Colorless

Odor: Slight ethereal odor

## HAZARDOUS COMPONENTS

Material(s):  
Dichlorodifluoromethane

Approximate % :  
100

## HAZARDOUS REACTIVITY

Stability: Material is stable. However, avoid open flames and high temperatures.

AR200746

Incompatibility: Alkali or alkaline earth metals; powdered Al, Zn, Be, etc.



ORIGINAL  
(Red)

**Decomposition:** Can be decomposed by high temperatures (open flames, glowing surfaces, etc.) forming hydrochloric and hydrofluoric acids - possible carbonyl halides.

**Polymerization:** Will not occur.

**FIRE AND EXPLOSION DATA**

**Flash Point:** None

**Method:** TOC

**Autoignition Temperature:**  
Not determined

**Flammable Limits in Air, % by Vol.**  
Lower: Non-flammable  
Upper: Non-flammable

**Autodecomposition Temperature:**  
Not determined

**Fire and Explosion:** Pressurized aerosol containers at elevated temperatures may vent, rupture, or burst and add to flying and falling debris. Intense heat may cause decomposition with emission of halogen acids.

**Extinguishing Media:** Non-flammable

**Special Fire Fighting Instructions:** Self-contained breathing apparatus (SCBA) may be required if aerosol cans rupture and contents are released under fire conditions.

**HEALTH HAZARD INFORMATION**

**Principal Health Hazards:**

**Inhalation:** Vapor is heavier than air and can cause suffocation by reducing oxygen available for breathing. Breathing high concentrations of vapor may cause light-headedness, giddiness, shortness of breath, and may lead to narcosis, cardiac irregularities, unconsciousness or death. LC50 rats, 800,000 ppm/30 min.

**Skin:** Liquid contact can cause frostbite

**Eye:** Liquid contact can cause frostbite. Tests in rabbit eyes with a 50% solution in mineral oil and with vapors resulted in no observable damage.

**Oral:** Rats were fed Freon\* 12 dissolved in peanut oil. No deaths occurred at highest feasible dose - 1000 mg/kg.

AR200747

ORIGINAL  
12/20

Exposure Limits:

<u>Material</u>	<u>TLV (ACGIH)</u>	<u>PEL (OSHA)</u>
Dichlorodifluoromethane	1000 ppm	1000 ppm

**Safety Precautions:** Avoid breathing vapors and liquid contact with skin or eyes. Do not turn aerosol can upside down when spraying. Use only in well-ventilated area.

First Aid:

**Inhalation:** Remove to fresh air, call a physician. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Do not give epinephrine or similar drugs.

**Note to Physician:** Because of a possible increased risk of eliciting cardiac dysrhythmias, catecholamine drugs, such as epinephrine, should be considered only as a last resort in life-threatening emergencies.

**Eye:** In case of liquid contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

**Skin:** Flush with water. Treat for frostbite if necessary.

Medical Conditions Possibly Aggravated by Exposure:

Cardiovascular Disease - See Principal Health Hazard: Inhalation Section.

Other Health Hazards:

Freon\* 12 is not classified as carcinogenic by IARC, NTP, or OSHA. Based on animal studies and human experiences this fluorocarbon poses no hazard to man relative to systemic toxicity, carcinogenicity, mutagenicity, or teratogenicity when occupational exposures are below its TLV\*.

PROTECTION INFORMATION:

Generally Applicable Control Measures:

Normal ventilation for standard manufacturing procedures is generally adequate. Local exhaust should be used when large amounts are released. Mechanical ventilation should be used in low places.

Personal Protective Equipment:

Lined butyl gloves should be used when handling liquid. Chemical splash goggles should be worn when handling liquid. Under normal manufacturing conditions, no respiratory protection is required when using this product. Self-contained breathing apparatus (SCBA) is required if a large release occurs.

APR 20 1978

ORIGINAL  
(Red)

DISPOSAL INFORMATION:

Spill, Leak or Release: Ventilate area - especially low places where heavy vapors might collect. Remove open flames.

Waste Disposal: Disposal service to landfill is appropriate. Do not puncture or incinerate aerosol cans.

SHIPPING INFORMATION:

Domestic - Other Than Air (DOT)

Proper Shipping Name: Dichlorodifluoromethane, Compressed Gas, NOS  
Hazard Class: Non-flammable Gas  
UN No.: 1956  
DOT Label: Non-flammable Gas  
DOT Placard: Non-flammable Gas

International Water or Air (IMO/ICAO)

Proper Shipping Name: Dichlorodifluoromethane, Compressed Gas, NOS  
Hazard Class: 2  
UN No.: 1956  
IMO/ICAO Label: Non-flammable Gas

Other Information

Shipping Containers: Aerosol cans

Storage Conditions: Do not store near sources of heat, in direct sunlight or where temperatures exceed 49°C/120°F. Do not puncture or damage containers. Rotate stock to shelf life on one year.

Date Revised: 11/85

Person Responsible: Janet Stephens,  
Miller-Stephenson Chemical Co., Inc.  
George Washington Highway  
Danbury, Conn. 06810  
(203) 743-4447

AR200749

\*Freon is DuPont's registered trademark for its fluorocarbon compounds.

# Material Information Bulletin

(Approved - "Essentially Similar" to Form OSHA 20, Material Safety Data Sheet)

ORIGINAL  
(Red)



**ORTHENE 75 S Soluble Powder**

**Product 5332**

**CAUTION! HARMFUL IF SWALLOWED  
MAY CAUSE EYE IRRITATION  
KEEP OUT OF REACH OF CHILDREN**

## TYPICAL COMPOSITION

Acephate: O,S-Dimethyl acetylphosphoramidothioate (CAS 30560-19-1)	75%
Inert Ingredients	25%

## EXPOSURE STANDARD

No OSHA exposure standard or Threshold Limit Value has been established for this material.

## PHYSIOLOGICAL & HEALTH EFFECTS

May cause moderate eye irritation. Application into the eyes of rabbits produced moderate membrane irritation without corneal involvement.

May cause skin irritation on prolonged or frequently repeated contact. Application onto the skin of rabbits produced slight erythema and edema. Score = 1.7. Not expected to be acutely toxic by skin absorption. The acute dermal LD<sub>50</sub> in rabbits was greater than 10 g/kg. See Additional Health Data.

Expected to have slight acute toxicity by inhalation. The inhalation LC<sub>50</sub> (rat) for a one-hour exposure was greater than 11 mg/liter.

Expected to have slight acute toxicity by ingestion. The acute oral LD<sub>50</sub> (rat) was 1494 mg/kg. See Additional Health Data.

## EMERGENCY & FIRST AID PROCEDURES

### Eyes

Wash eyes with fresh water for at least 15 minutes. If irritation continues, see a doctor.

### Skin

Wash thoroughly with soap and water following skin contact. See a doctor if any signs or symptoms described in this bulletin occur. Launder contaminated clothing.

### Inhalation

If respiratory irritation or any signs or symptoms, as described in this bulletin occur, move the person to fresh air. If any of these effects continue, see a doctor.

### Ingestion

If swallowed, give a large amount of water to drink, make person vomit, and call a doctor.

ORIGINAL  
(Red)

## ADDITIONAL HEALTH DATA

See Page 3.

### SPECIAL PROTECTIVE INFORMATION

**Eye Protection:** Avoid contact with eyes. Eye contact can be avoided by wearing chemical safety goggles.

**Skin Protection:** Avoid contact with skin or clothing. Skin contact can be minimized by wearing impervious protective clothing including rubber gloves.

**Respiratory Protection:** Avoid breathing vapor, dust or spray mist. Breathing the vapor, dust or spray mist can be minimized by wearing an approved respirator for pesticides.

**Ventilation:** Use this material only in well ventilated areas.

**Other:** If eye or skin contact can occur, washing facilities for eyes and skin should be available nearby.

### FIRE PROTECTION

**Flash Point:** n/a

**Autoignition Temp.:** n/a

**Flammability Limits:** n/a

**Extinguishing Media:** CO<sub>2</sub>, Dry Chemical, Foam, Water Spray.

**Special Fire Fighting Procedures:** Smoke from fires involving this material may present unusual hazards. Avoid breathing smoke or mists. Avoid contact with fallout or runoff. Minimize the amount of water used for fire fighting. Do not enter any enclosed area without full protective equipment, including self-contained breathing equipment. Contain and isolate runoff and debris for proper disposal. Read the entire bulletin.

### SPECIAL PRECAUTIONS

**READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.**

Do not contaminate food or foodstuffs.

Do not store or transport near feed or food.

Keep in original container. Do not put in food or drink containers. Store in cool dry place. Protect from excessive heat.

## ENVIRONMENTAL PROTECTION

**Environmental Impact:** This product is highly toxic to bees exposed to direct treatment or residues on crops. Do not apply directly to water. Do not contaminate water by cleaning of equipment or disposal of waste. For help with any spill, leak, fire or exposure involving this material, call day or night (415) 233-3737.

**Precautions if Material is Released or Spilled:** Vacuum (preferred) or sweep up material and place in disposable container. Scrub contaminated area with detergent and water, picking up liquid with rags or absorbent material. Place in container for disposal. Repeat if necessary.

**Waste Disposal Methods:** Contaminated cleanup materials may be hazardous. Refer to Special Protective Information before handling. Contaminated materials should be placed in disposable containers and buried in an approved dumping area.

### REACTIVITY DATA

**Stability (Thermal, Light, etc.):** Stable.

**Incompatibility (Materials to Avoid):** Contact with alkaline materials, including hypochlorite oxidants, may produce noxious gases.

**Hazardous Decomposition Products:** Normal combustion forms carbon dioxide and water vapor and may produce oxides of sulfur, nitrogen and phosphorus; incomplete combustion can produce carbon monoxide.

**Hazardous Polymerization:** Will not occur.

### PHYSICAL PROPERTIES

**Solubility:** Soluble in water; moderately soluble in alcohol and acetone. Slightly to moderately soluble in aromatic solvents.

**Appearance (Color, Odor, etc.):** White powder with a strong mercaptan-type odor.

**Boiling Point:** n/a

**Melting Point:** n/a

**Specific Gravity:** NDA

**Vapor Pressure (mm Hg & Temp.):** n/a

**Vapor Density (Air = 1):** n/a

**Percent Volatile (Volume %):** n/a

**Bulk Density:** 0.4 to 0.6 g/cc

n/a = Not Applicable

NDA = No Data Available

AR200751

The above information is based on data of which we are aware and is believed to be correct as of the date hereof. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

## SUPPLEMENT

ORIGINAL  
(Red)

## ORTHENE 75 S Soluble Powder

Product 5332

## ADDITIONAL HEALTH DATA

This product contains an organic phosphorus insecticide which inhibits cholinesterase. Signs and symptoms which may be seen following ingestion may include, but may not be limited to, constriction of the pupil of the eye, blurred vision, excessive salivation or nasal discharge, profuse sweating, cramps, nausea, vomiting, retching, production of tears, twitching, tremors or convulsions. In severe cases, death may result from respiratory failure or cardiac arrest. Signs and symptoms may be delayed but rarely begin later than 12 hours after exposure. Repeated exposure may result in depletion of cholinesterase. Additional slight exposure may result in acute intoxication.

**Note to Physician:** Blood cholinesterase levels may be useful in monitoring exposure. If signs of cholinesterase inhibition appear, atropine sulfate is antidotal. 2-PAM (PROTOPAM) is also antidotal and may be used in conjunction with atropine but should not be used alone.

In a rat lifetime feeding study, three groups of 75 animals of each sex were fed ORTHENE Technical in their food for 28 months. The daily dose levels were approximately 0.3, 2.8 and 42.6 mg of ORTHENE per kilogram of body weight. The most significant treatment-related effect was the decrease in cholinesterase activity of plasma, RBC and brain. The low dose of 0.3 mg/kg/day was the no-effect level for RBC and plasma cholinesterase inhibition. We believe this dose to also be a no-effect level for brain cholinesterase depression, although there was occasional depression of brain cholinesterase noted. This appeared to be random in occurrence and not treatment-related. The two additional findings of interest were the increased liver/body weight ratio of high-dose females and a higher incidence of adrenal medullary tumors in treated male rats. The incidence of the adrenal medullary tumors was not considered to be significantly elevated above historical control values. There were no differences between control and treated animals in physical appearance (e.g., no physical signs suggestive of cholinesterase inhibition), mortality, hematology, clinical chemistry, or urinalysis. All other non-neoplastic and neoplastic findings were those commonly seen in the laboratory rat and were considered to have no relationship to ingestion of ORTHENE.

In a mouse lifetime feeding study, three groups of 75 mice of each sex were fed ORTHENE Technical in their food for 104 weeks. The daily dose levels were approximately 7.5, 39 and 156.5 milligrams of ORTHENE per kilogram/body weight. Body weights of the mid- and high-dose animals were 10-29% less than weights of control animals, but there was no effect on survival. A compound-related increase in liver weight, together with liver carcinoma (a common form of cancer in mice) in the high-dose females, was observed. These changes did not occur in the males at any dose level or in the low- or mid-dose females. Other liver pathology changes were observed in the mid- and high-dose animals of both sexes, but only the high-dose females showed liver cancer. No liver pathology was observed in the low-dose animals of either sex. Lung, nasal cavity, and mediastinal lymph node changes, such as pigmented macrophages, were seen at an increased incidence in treated animals, but were also seen in controls. The toxicological significance, if any, of these findings is unclear. Treatment-related mineral deposits were also observed in kidney tubules of high-dose male mice.

Although ORTHENE has shown some weak mutagenic activity in in vitro, results of several in vivo mutagenicity studies indicate that ORTHENE is not mutagenic in whole animals.

In a recently completed reproduction study, three groups of male and female rats were fed ORTHENE Technical (2.5, 7.5 and 25 mg/kg/day) continuously for two generations through weaning of the third generation. There were treatment-related effects at 7.5 and 25 mg/kg/day, including reduced mating performance, number of litters born, reduced litter size at birth and number of litters weaned. The low dose (2.5 mg/kg/day) was judged to be a no-effect level.

To our knowledge, ORTHENE has not been associated with cancer or other chronic toxicity or decreased reproductive performance in humans. However, because of the results discussed above, this pesticide should be handled as outlined in the bulletin and on the product label.

Manufacturer: Xerox Corporation  
Rochester, New York 14644

Emergency Tel. No. : (716) 422-2177  
Information Tel. No.: (800) 828-6571

**Section I - Product Identification**

Trade Names/Synonyms: 1025/1038 Photoreceptor Part No. : 1R76

Chemical Name: None

Ingredients

CAS No.

Substrate (>99%):  
Aluminum Drum

7429-90-5

Coating (<1%):  
Selenium (>99%)  
Tellurium (<1%)  
Arsenic (<0.1%)

7782-49-2  
13494-80-9  
7440-38-2

**Section II - Emergency and First Aid**

Eyes: Flush with water.  
Skin: Wash with soap and water.  
Inhalation: Not Applicable  
Ingestion: Not Applicable  
Primary Route of Entry: Skin  
Symptoms of Overexposure: None

Additional Information: See Sections V through IX.  
Further information on file in Poisindex.

**Section III - Toxicology and Health Information**

*This material has been extensively tested and evaluated by Xerox Corporation. When used as intended, it does not represent any known health or safety hazard.*

Oral LD<sub>50</sub>: >5 g/kg (Rats) practically non-toxic  
Dermal LD<sub>50</sub>: 2 g/kg (Rabbits) practically non-toxic  
Inhalation LC<sub>50</sub>: N. A.  
Eye Irritation: (Rabbits) slightly irritating  
Skin Sensitization: (Guinea Pigs) non-sensitizing  
Skin Irritation: (Rabbits) non-irritating  
Human Patch: Non-irritating, non-sensitizing  
Mutagenicity: N.A.

TLV: 0.2 mg/m<sup>3</sup> (Selenium)  
0.1 mg/m<sup>3</sup> (Tellurium)  
0.2 mg/m<sup>3</sup> (Arsenic)

PEL: 0.2 mg/m<sup>3</sup> (Selenium)  
0.1 mg/m<sup>3</sup> (Tellurium)  
0.01 mg/m<sup>3</sup> (Arsenic)

Aquatic LC<sub>50</sub>: >500 mg/l (Fathead Minnows) non-toxic

**AR200753**  
<sup>1</sup>XEL: 0.01 mg/m<sup>3</sup> (Tellurium)  
0.01 mg/m<sup>3</sup> (Arsenic)

Additional Information: This product contains less than 0.1% Arsenic which is classified as a carcinogen by OSHA, NTP and IARC.

<sup>1</sup>XEL - Xerox Exposure Limit

**Section IV - Physical Data**

Appearance/Odor: Solid / Odorless

Boiling Point: N.A.

Solubility in Water: Insoluble

Evaporation Rate: N.A.

Vapor Density (Air = 1): N.A.

Volatile N.A. % (Wgt.) N.A. % (Vol.)

Softening Range: N.A.

Melting Point: N.A.

Specific Gravity (H<sub>2</sub>O = 1): N.A.

Vapor Pressure (mm Hg): N.A.

pH = N.A.

**Section V - Fire and Explosion Data**

Flash Point (Method Used): N.A.

Flammable LEL: N.A.

Limits UEL: N.A.

Extinguishing Media: Water, Carbon dioxide, Foam

Special Fire Fighting Procedures: When in a machine, treat as an electrical fire.

Fire and Explosion Hazards: Exposure to high temperatures can result in melting and pyrolysis. Fumes may cause respiratory symptoms. Delayed effects may occur up to 72 hours.

**Section VI - Reactivity Data**

Stability:

Unstable

Stable

X

Hazardous

Polymerization:

May Occur

Will Not Occur

X

Hazardous Decomposition Products: Oxides of Selenium, Arsenic and Tellurium.

Incompatibility (Materials to Avoid): Strong Acids

**Section VII - Special Protection Information**

Respiratory Protection: None required when used as intended in Xerox equipment.

Eye Protection: None required when used as intended in Xerox equipment.

Protective Gloves: None required when used as intended in Xerox equipment.

Other: None required when used as intended in Xerox equipment.

**Section VIII - Special Precautions**

Handling and Storage: Use wet pumicing and polishing procedures.

Conditions to Avoid: Avoid exposure to high temperatures

**Section IX - Spill, Leak, and Disposal Procedures**

For Spills or Leakage: Particles of coating detached through physical damage must be collected and disposed of as a chemical waste.

Waste Disposal Method: Return used or damaged photoreceptor to Xerox or supplier. Under present EPA Regulations, it is not classified as a hazardous waste. However, disposal in a chemical waste landfill is recommended. Insure conformity with federal, state and local regulations.

**Section X - Transportation Information**

DOT Proper Shipping Name: Not Regulated

Hazard Classification: N.A.

ID Number: N.A.

AR200754



Manufacturer: Xerox Corporation  
 Rochester, New York 14644  
 Emergency Tel. No. : (716) 422-2177  
 Information Tel. No.: (800) 828-6571

**Section I - Product Identification**

Trade Names/Synonyms: 1025/1038 Photoreceptor Part No. : 1R80

Chemical Name: None

<u>Ingredients</u>	<u>CAS No.</u>
<u>Substrate (80-85%):</u> Nickel Drum	7440-02-0
<u>Coating (15-20%):</u> Selenium (>99%) Tellurium (<1%) Arsenic (<0.1%)	7782-49-2 13494-80-9 7440-38-2

**Section II - Emergency and First Aid**

Eyes: Flush with water.  
 Skin: Wash with soap and water.  
 Inhalation: Not Applicable  
 Ingestion: Not Applicable  
 Primary Route of Entry: Skin  
 Symptoms of Overexposure: None

Additional Information: See Sections V through IX.  
 Further information on file in Poisindex.

**Section III - Toxicology and Health Information**

*This material has been extensively tested and evaluated by Xerox Corporation. When used as intended, it does not represent any known health or safety hazard.*

Oral LD <sub>50</sub> : >5 g/kg (Rats) practically non-toxic	TLV: 1 mg/m <sup>3</sup> (Nickel)
Dermal LD <sub>50</sub> : 2 g/kg (Rabbits) practically non-toxic	0.2 mg/m <sup>3</sup> (Selenium)
Inhalation LC <sub>50</sub> : N.A.	0.1 mg/m <sup>3</sup> (Tellurium)
Eye Irritation: (Rabbits) slightly irritating	0.2 mg/m <sup>3</sup> (Arsenic)
Skin Sensitization: (Guinea Pigs) non-sensitizing	PEL: 1 mg/m <sup>3</sup> (Nickel)
Skin Irritation: (Rabbits) non-irritating	0.2 mg/m <sup>3</sup> (Selenium)
Human Patch: Non-irritating, non-sensitizing	0.1 mg/m <sup>3</sup> (Tellurium)
Mutagenicity: N.A.	0.01 mg/m <sup>3</sup> (Arsenic)
Aquatic LC <sub>50</sub> : >500 mg/l (Fathead Minnows) non-toxic	<sup>1</sup> XEL: 0.01 mg/m <sup>3</sup> (Tellurium)
	0.01 mg/m <sup>3</sup> (Arsenic)

Additional Information: This product contains Nickel and Arsenic which are classified as carcinogens by OSHA, NTP and IARC.

<sup>1</sup>XEL - Xerox Exposure Limit

AR200735

Trade Name: 1025/1038 Photoreceptor

MSDS No.: 0311A

### Section IV - Physical Data

Appearance/Odor: Solid / Odorless  
Boiling Point: N.A.  
Solubility in Water: Insoluble  
Evaporation Rate: N.A.  
Vapor Density (Air = 1): N.A.  
Volatile N.A. % (Wgt.) N.A. % (Vol.)

Softening Range: N.A.  
Melting Point: N.A.  
Specific Gravity (H<sub>2</sub>O = 1): N.A.  
Vapor Pressure (mm Hg): N.A.  
pH = N.A.

### Section V - Fire and Explosion Data

Flash Point (Method Used): N.A. Flammable Limits LEL: N.A. UEL: N.A.  
Extinguishing Media: Water, Carbon dioxide, Foam  
Special Fire Fighting Procedures: When in a machine, treat as an electrical fire.  
Fire and Explosion Hazards: Exposure to high temperatures can result in melting and pyrolysis. Fumes may cause respiratory symptoms. Delayed effects may occur up to 72 hours.

### Section VI - Reactivity Data

Stability:	Unstable		Hazardous Polymerization:	May Occur	
	Stable	X		Will Not Occur	X

Hazardous Decomposition Products: Oxides of Selenium, Arsenic and Tellurium.  
Incompatibility (Materials to Avoid): Strong Acids

### Section VII - Special Protection Information

Respiratory Protection: None required when used as intended in Xerox equipment.  
Eye Protection: None required when used as intended in Xerox equipment.  
Protective Gloves: None required when used as intended in Xerox equipment.  
Other: None required when used as intended in Xerox equipment.

### Section VIII - Special Precautions

Handling and Storage: Use wet pumicing and polishing procedures.  
Conditions to Avoid: Avoid exposure to high temperatures

### Section IX - Spill, Leak, and Disposal Procedures

For Spills or Leakage: Particles of coating detached through physical damage must be collected and disposed of as a chemical waste.

Waste Disposal Method: Return used or damaged photoreceptor to Xerox or supplier. Under present EPA Regulations, it is not classified as a hazardous waste. However, disposal in a chemical waste landfill is recommended. Insure conformity with federal, state and local regulations.

### Section X - Transportation Information

DOT Proper Shipping Name: Not Regulated  
Hazard Classification: N.A. ID Number: N.A.

AR200756



INDUSTRIAL PETROCHEMICALS, INC.  
128 Doremus Avenue  
Newark, New Jersey 07105  
Tel: (201) 589-1450

MAB PAINTS

ORIGINAL  
T172

# MATERIAL SAFETY DATA SHEET

MSDS NUMBER 7,570-3 PAGE

97367 14-R51

24 HOUR EMERGENCY ASSISTANCE		GENERAL MSDS ASSISTANCE	
SHELL: 713-473-9461 CHEMTREC: 800-424-9300		SHELL: 713-241-4819	
ACUTE HEALTH +	FIRE 2	REACTIVITY 0	HAZARD RATING LEAST - 0 SLIGHT - 1 MODERATE - 2 HIGH - 3 EXTREME - 4
*For acute and chronic health effects refer to the discussion in Section III			



SECTION I	NAME
PRODUCT	MINERAL SPIRITS 145-EC <b>PAIN THINNER</b> <b>MAB 090-032</b>
CHEMICAL NAME	NOT APPLICABLE <b>RECEIVED</b>
CHEMICAL FAMILY	HYDROCARBON SOLVENT
SHELL CODE	83063

SECTION II-A PRODUCT/INGREDIENT

NO.	COMPOSITION	CAS NUMBER	PERCENT
P	MINERAL SPIRITS 145-EC	MIXTURE*	100
1	SOLVENT NAPHTHA (PETROLEUM), MEDIUM ALIPHATIC	64742-88-7	>90
2	SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC	64742-95-6	<10
-----TYPICAL DISTRIBUTION-----			
	PARAFFINS	NOT APPL.	52.9
	NAPHTHENES	NOT APPL.	38.9
	TOTAL AROMATICS	NOT APPL.	8.2
	(TRIMETHYLBENZENE ..... 2.3-2.7)	25551-13-7	--
	(ETHYLTOLUENE ..... 0.9-1.1)	25550-14-5	--
	OLEFINS	NOT APPL.	<0.1

Handwritten: C. MURPHY, 12/21/78, 240, 21, 1263

\*A COMPLEX COMBINATION OF PREDOMINATELY C8-C12 HYDROCARBONS; EXACT COMPOSITION WILL VARY.

SECTION II-B ACUTE TOXICITY DATA

NO.	ACUTE ORAL LD50	ACUTE DERMAL LD50	ACUTE INHALATION LC50
P	NOT AVAILABLE		
1*	>25 ML/KG (RAT)	>4 ML/KG (RABBIT)	>700 PPM/4H (RAT)
2*	4.7 G/KG (RAT)	>4 ML/KG (RAT)	>3670 PPM/8H (RAT)

\*BASED UPON TESTING ON EITHER PRODUCT OR ESSENTIALLY SIMILAR PRODUCTS.

SECTION III HEALTH INFORMATION

THE HEALTH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

AR200757

**EYE CONTACT**  
LIQUID IS MINIMALLY IRRITATING TO THE EYES. HIGH VAPOR CONCENTRATIONS MAY CAUSE IRRITATION.

**SKIN CONTACT**  
LIQUID IS SLIGHTLY IRRITATING TO THE SKIN. PROLONGED OR REPEATED LIQUID CONTACT CAN RESULT IN DEFATTING AND DRYING OF THE SKIN WHICH MAY RESULT IN SKIN IRRITATION AND DERMATITIS.

**INHALATION**

VAPORS MAY BE IRRITATING TO NOSE, THROAT AND RESPIRATORY TRACT. HIGH VAPOR CONCENTRATIONS MAY CAUSE CNS DEPRESSION.

**INGESTION**

INGESTION OF PRODUCT MAY RESULT IN VOMITING; ASPIRATION (BREATHING) OF VOMITUS INTO THE LUNGS MUST BE AVOIDED AS EVEN SMALL QUANTITIES MAY RESULT IN ASPIRATION PNEUMONITIS.

**SIGNS AND SYMPTOMS**

IRRITATION AS NOTED ABOVE. EARLY TO MODERATE CNS (CENTRAL NERVOUS SYSTEM) DEPRESSION MAY BE EVIDENCED BY GIDDINESS, HEADACHE, DIZZINESS AND NAUSEA; IN EXTREME CASES, UNCONCIOUSNESS AND DEATH MAY OCCUR. ASPIRATION PNEUMONITIS MAY BE EVIDENCED BY COUGHING, LABORED BREATHING AND CYANOSIS (BLUISH SKIN); IN SEVERE CASES DEATH MAY OCCUR.

**AGGRAVATED MEDICAL CONDITIONS**

PREEXISTING EYE, SKIN AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

SEE SECTION VI FOR SUPPLEMENTAL INFORMATION.

-----  
**SECTION IV OCCUPATIONAL EXPOSURE LIMITS**  
-----

NO.	OSHA		ACGIH	OTHER
	PEL/TWA	PEL/CEILING		
P*	500 PPM		100 PPM	200 PPM

\*RECOMMEND THAT LIMITS FOR STODDARD SOLVENT BE USED AS A GUIDE.

-----  
**SECTION V EMERGENCY AND FIRST AID PROCEDURES**  
-----

**EYE CONTACT**

FLUSH EYES WITH PLENTY OF WATER FOR 15-MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION.

**SKIN CONTACT**

REMOVE CONTAMINATED CLOTHING/SHOES; FLUSH SKIN WITH WATER. FOLLOW BY WASHING WITH SOAP AND WATER. IF IRRITATION OCCURS, GET MEDICAL ATTENTION. DO NOT REUSE CLOTHING UNTIL CLEANED.

**INHALATION**

REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. GET MEDICAL ATTENTION.

**INGESTION**

DO NOT INDUCE VOMITING. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS TO PREVENT ASPIRATION OF LIQUID INTO THE LUNGS. GET MEDICAL ATTENTION.\*

**NOTE TO PHYSICIAN**

\*IF MORE THAN 2.0 ML PER KG HAS BEEN INGESTED AND VOMITING HAS NOT OCCURRED, EMESIS SHOULD BE INDUCED WITH SUPERVISION. KEEP VICTIM'S HEAD BELOW HIPS TO PREVENT ASPIRATION. IF SYMPTOMS SUCH AS LOSS OF GAG REFLEX, CONVULSIONS OR UNCONCIOUSNESS OCCUR BEFORE EMESIS, GASTRIC LAVAGE USING A CUFFED ENDOTRACHEAL TUBE SHOULD BE CONSIDERED.

-----  
**SECTION VI SUPPLEMENTAL HEALTH INFORMATION**  
-----

MALE RATS EXPOSED FOR 90 DAYS BY INHALATION TO VAPORS OF SOLVENTS SIMILAR TO COMPONENT 1 SHOWED EVIDENCE OF KIDNEY DAMAGE. THE RELEVANCE OF THIS EFFECT TO MAN IS UNKNOWN. IN ONE OF THE STUDIES A LOW GRADE ANEMIA WAS ALSO OBSERVED.

RATS EXPOSED FOR 4 MONTHS TO 1700 PPM OF A SOLVENT SIMILAR TO COMPONENT 2 SHOWED EVIDENCE OF MILD DAMAGE TO THE LIVER, LUNGS AND KIDNEYS. THESE EFFECTS WERE NOT SEEN IN RATS EXPOSED FOR 1 YEAR TO 350 PPM OF ANOTHER SIMILAR SOLVENT.

AR200758

-----  
SECTION VII PHYSICAL DATA  
-----

BOILING POINT: 317-388 (DEG F)                      SPECIFIC GRAVITY: 0.78 (H2O=1)                      VAPOR PRESSURE: <5\* (MM HG) 100 DEG. F  
MELTING POINT: NOT AVAILABLE (DEG F)                      SOLUBILITY: NEGLIGIBLE (IN WATER)                      VAPOR DENSITY: 4.8\* (AIR=1)  
EVAPORATION RATE (N-BUTYL ACETATE = 1): <0.1\*                      \* ESTIMATED

APPEARANCE AND ODOR: LIGHT COLORED LIQUID. HYDROCARBON ODOR.

-----  
SECTION VIII FIRE AND EXPLOSION HAZARDS  
-----

FLASH POINT AND METHOD: 112 DEG. F (TCC)                      FLAMMABLE LIMITS % VOLUME IN AIR  
LOWER: 1                      UPPER: 6

EXTINGUISHING MEDIA  
USE WATER FOG, FOAM, DRY CHEMICAL OR CO2. DO NOT USE A DIRECT STREAM OF WATER. PRODUCT WILL FLOAT AND CAN BE REIGNITED ON SUFACE OF WATER.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS  
CAUTION. COMBUSTIBLE. DO NOT ENTER CONFINED FIRE SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES AND RUBBER BOOTS), INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS  
CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED WITH WATER TO PREVENT VAPOR PRESSURE BUILDUP WHICH COULD RESULT IN CONTAINER RUPTURE. CONTAINER AREAS EXPOSED TO DIRECT FLAME CONTACT SHOULD BE COOLED WITH LARGE QUANTITIES OF WATER AS NEEDED TO PREVENT WEAKENING OF CONTAINER STRUCTURE.

-----  
SECTION IX REACTIVITY  
-----

STABILITY: STABLE                      HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID:  
AVOID HEAT, FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS  
CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION.

-----  
SECTION X EMPLOYEE PROTECTION  
-----

RESPIRATORY PROTECTION  
AVOID PROLONGED OR REPEATED BREATHING OF VAPORS. IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS (SEC. IV) USE A NIOSH-APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134 USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS.

PROTECTIVE CLOTHING  
AVOID CONTACT WITH EYES. WEAR SAFETY GLASSES OR GOGGLES AS APPROPRIATE. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. WEAR CHEMICAL-RESISTANT GLOVES AND OTHER CLOTHING AS REQUIRED TO MINIMIZE CONTACT.

ADDITIONAL PROTECTIVE MEASURES  
USE EXPLOSION-PROOF VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS. AIR-DRY CONTAMINATED CLOTHING IN A WELL VENTILATED AREA, THEN LAUNDER BEFORE REUSING.

AR200759

-----  
SECTION XI ENVIRONMENTAL PROTECTION  
-----

## SPILL OR LEAK PROCEDURES

CAUTION. COMBUSTIBLE. \*\*\* LARGE SPILLS \*\*\* ELIMINATE POTENTIAL SOURCES OF IGNITION. WEAR APPROPRIATE RESPIRATOR AND OTHER PROTECTIVE CLOTHING. SHUT OFF SOURCE OF LEAK ONLY IF SAFE TO DO SO. DIKE AND CONTAIN. REMOVE WITH VACUUM TRUCKS OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND, OR OTHER SUITABLE MATERIAL; PLACE IN NON-LEAKING CONTAINERS AND SEAL TIGHTLY FOR PROPER DISPOSAL. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE; DISPOSE OF FLUSH SOLUTION AS ABOVE. \*\*\* SMALL SPILLS \*\*\* TAKE UP WITH AN ABSORBENT MATERIAL AND PLACE IN NON-LEAKING CONTAINERS FOR PROPER DISPOSAL.

## WASTE DISPOSAL

UNDER EPA - RCRA (40 CFR 261.21), IF THIS PRODUCT BECOMES A WASTE MATERIAL, IT WOULD BE IGNITABLE HAZARDOUS WASTE, HAZARDOUS WASTE NUMBER 0001. REFER TO LATEST EPA OR STATE REGULATIONS REGARDING PROPER DISPOSAL.

## ENVIRONMENTAL HAZARDS

UNDER EPA-CWA, THIS PRODUCT IS CLASSIFIED AS AN OIL UNDER SECTION 311. SPILLS INTO OR LEADING TO SURFACE WATERS THAT CAUSE A SHEEN MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER, 800-424-8802. EPA - COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT. UNDER EPA-CERCLA ("SUPERFUND") RELEASES TO AIR, LAND OR WATER MAY BE REPORTABLE TO THE NATIONAL RESPONSE CENTER, 800-424-8802 (CIRCUMSTANCES SURROUNDING THE RELEASE AND CLEANUP DETERMINE REPORTABILITY).

-----  
SECTION XII SPECIAL PRECAUTIONS  
-----

KEEP LIQUID AND VAPOR AWAY FROM HEAT, SPARKS AND FLAME. SURFACES THAT ARE SUFFICIENTLY HOT MAY IGNITE EVEN LIQUID PRODUCT IN THE ABSENCE OF SPARKS OR FLAME. EXTINGUISH PILOT LIGHTS, CIGARETTES AND TURN OFF OTHER SOURCES OF IGNITION PRIOR TO USE AND UNTIL ALL VAPORS ARE GONE. VAPORS MAY ACCUMULATE AND TRAVEL TO IGNITION SOURCES DISTANT FROM THE HANDLING SITE; FLASH-FIRE CAN RESULT. KEEP CONTAINERS CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILATION.

CONTAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, CAN CONTAIN EXPLOSIVE VAPORS. DO NOT CUT, DRILL, GRIND, WELD OR PERFORM SIMILAR OPERATIONS ON OR NEAR CONTAINERS.

STATIC ELECTRICITY MAY ACCUMULATE AND CREATE A FIRE HAZARD. GROUND FIXED EQUIPMENT. BOND AND GROUND TRANSFER CONTAINERS AND EQUIPMENT.

-----  
SECTION XIII TRANSPORTATION REQUIREMENTS  
-----

DEPARTMENT OF TRANSPORTATION CLASSIFICATION: COMBUSTIBLE LIQUID  
D.O.T. PROPER SHIPPING NAME: PETROLEUM NAPHTHA

## OTHER REQUIREMENTS:

UN 1255. GUIDE SHEET 27.

-----  
SECTION XIV OTHER REGULATORY CONTROLS  
-----

THE COMPONENTS OF THIS PRODUCT ARE LISTED ON THE EPA/TSCA INVENTORY OF CHEMICAL SUBSTANCES

AR200760

PRODUCT NAME: MINERAL SPIRITS 145-EC

MSDS 7,570-3  
PAGE 5

-----  
THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT  
HOWEVER, SHELL MAKES NO WARRANTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE  
RESULTS TO BE OBTAINED FROM THE USE THEREOF. SHELL ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE  
USE OF THE PRODUCT DESCRIBED HEREIN.  
-----

DATE PREPARED: OCTOBER 04, 1985  
-----

BE SAFE

READ OUR PRODUCT  
SAFETY INFORMATION ... AND PASS IT ON  
(PRODUCT LIABILITY LAW  
REQUIRES IT)

-----  
JOHN P. SEPESI  
-----

SHELL OIL COMPANY  
PRODUCT SAFETY AND COMPLIANCE  
P. O. BOX 4320  
HOUSTON, TX 77210

AR200761

## MATERIAL SAFETY DATA SHEET

NFPA Designation

1260-00-R

Information on this form is furnished solely for the purpose of compliance with the Occupational Safety and Health Act of 1970 and shall not be used for any other purpose. Use or dissemination of all or any part of this information for any other purpose or purposes is illegal.

### SECTION 1 — MANUFACTURER

MANUFACTURER'S NAME	ADDRESS	EMERGENCY PHONE NO. 24 HOURS
Zoecon Corporation	975 California Avenue P.O. Box 10975 Palo Alto, CA 94304	(415) 857-0172 COLLECT or CHEMTREC (800) 424-9300 or Local Poison Control Center

### SECTION 2 — PRODUCT IDENTIFICATION

TRADE NAME AND SYNONYMS	REGISTRATION NO.
PENTAC AQUAFLOW™	20954 - 112

CHEMICAL FAMILY
Chlorinated cyclic hydrocarbon

### SECTION 3 — HAZARDOUS INGREDIENTS

CHEMICAL NAME AND SYNONYMS	CAS No.	CHEMICAL FORMULA	WT%	TLV
Dienochlor	2227-17-0	C <sub>10</sub> Cl <sub>10</sub>	38%	
Inerts			62%	

### SECTION 4 — PHYSICAL PROPERTIES

BOILING POINT (760 mm Hg)	100°C	SPECIFIC GRAVITY (WATER = 1)	1.27 - 1.28
MELTING POINT	-	BULK DENSITY (LBS./CU. FT.)	
VAPOR PRESSURE (mm Hg 20°C)	~ 22mmHg	EVAPORATION RATE	N/A
VAPOR DENSITY (AIR = 1)	N/A	PERCENT VOLATILE BY VOLUME	
SOLUBILITY IN WATER	Dispersible	PH	5.0 - 5.2
APPEARANCE AND ODOR	Brown slurry, slight odor.	Other	

### SECTION 5 — FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (TEST METHOD)	None	FLAMMABLE LIMITS	LOWER	UPPER
AUTOIGNITION TEMPERATURE		(% BY VOLUME)		
EXTINGUISHING MEDIA	As appropriate for surrounding fire.			

SPECIAL FIRE FIGHTING PROCEDURES & PERSONNEL PROTECTION  
Wear self-contained breathing apparatus and full protective equipment.

AR200762

UNUSUAL FIRE AND EXPLOSION HAZARDS  
Decomposition or oxidation of dry residue may release toxic chlorides including phosgene and/or chlorine.



SECTION 6 - HEALTH HAZARD DATA

ACUTE TOXICITY		EPA Toxicity Category
Acute Oral - Rat	LD <sub>50</sub> > 5,100mg/kg	IV
Acute Dermal - Rabbit	LD <sub>50</sub> >20,100mg/kg	IV
Skin Irritation - Rabbit	Minimally Irritating	IV
Eye Irritation - Rabbit	Moderately Irritating	III

EFFECTS OF OVEREXPOSURE (ACUTE)

Causes moderate eye irritation.

ORIGINAL  
(Red)

EMERGENCY AND FIRST AID PROCEDURES

Eyes - Flush with a directed stream of water for at least 15 minutes. Consult physician if irritation persists.

Skin - Wash thoroughly with soap and water.

Ingestion - Call a physician or a poison control center. There is no specific antidote. Treat symptomatically. Induce vomiting if patient is alert, if not alert, empty stomach by lavage.

SECTION 7 - PERSONAL PROTECTION DATA

Avoid contact with eyes.  
Avoid inhalation of spray mist.  
Wash thoroughly after handling.

SECTION 8 - REACTIVITY DATA

STABILITY (NORMAL CONDITIONS)

CONDITIONS TO AVOID

Extreme heat

STABLE ( ) UNSTABLE

COMPATIBILITY (MATERIALS TO AVOID)

HAZARDOUS POLYMERIZATION

CONDITIONS TO AVOID

Alkali, sodium, potassium, amines.

( ) MAY OCCUR  WILL NOT OCCUR

HAZARDOUS DECOMPOSITION PRODUCTS

Decomposition by heat may release toxic chlorides including phosgene, hydrogen chloride and/or toxic elemental chlorine.

SECTION 9 - ENVIRONMENTAL PROTECTION DATA

ENVIRONMENTAL PRECAUTIONS

Do not contaminate water, food or feed by storage or disposal.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Adsorb spill on vermiculite or other absorbent material and dispose of in compliance with Federal, State and local regulations.

WASTE DISPOSAL PROCEDURES

Pesticide, spray mixture or rinseate must be disposed of according to Federal, State or local procedures. Triple rinse container and dispose of in a sanitary landfill.

SECTION 10 - HANDLING AND STORAGE PRECAUTIONS

AR200763

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Use according to label directions.

USPS SHIPPING NAME

PENTAC Aquaflow

DOT HAZARD CLASS

HAZARDOUS MATERIALS (IF NOT EXEMPTED)

FLAMMABLE ( ) OXIDIZER ( ) CORROSIVE ( ) POISON ( )

# MATERIAL SAFETY DATA SHEET



Required under USDL Safety and Health Regulations for Ship Repairing,  
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

PPE **B**  
IN **219**

### SECTION I

MANUFACTURER'S NAME Chemtronics Inc.		EMERGENCY TELEPHONE NO. 582-3322 (516)
ADDRESS 681 Old Willets Path, Hauppauge, NY 11778		
CHEMICAL NAME AND SYNONYMS		TRADE NAME AND SYNONYMS Plast-N-Glas C8400/C6400
CHEMICAL FAMILY	FORMULA	

### SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST Isopropyl Alcohol	19	200	ALLOYS		
VEHICLE Ammonium	0.25	25	METALLIC COATINGS		
SOLVENTS Dichlorodifluoromethane	1000		FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)
NONE					

### SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	176F	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	0.98
VAPOR PRESSURE (mm Hg.) @ 77F	520	PERCENT VOLATILE BY VOLUME (%)	99+
VAPOR DENSITY (AIR=1)	1.7	EVAPORATION RATE (_____ =1)	2+
SOLUBILITY IN WATER	SL Soluble		
APPEARANCE AND ODOR	Clear solution - pleasant floral odor		

### SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	NONE	FLAMMABLE LIMITS	LoI	Uel
EXTINGUISHING MEDIA	N/A	<b>RECEIVED</b>		
SPECIAL FIRE FIGHTING PROCEDURES	NONE			
UNUSUAL FIRE AND EXPLOSION HAZARDS	NONE	MAR 2007 64		

ORIGINAL (Red)

None known to Chemtronics

OTHER PRECAUTIONS  
of strong oxidants adequate ventilation required observe all hazard outlined in this sheet  
Keep container closed when not in use. Do not handle or store near flame  
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

SECTION IX - SPECIAL PRECAUTIONS

PROTECTIVE GLOVES  
None should be needed  
OTHER PROTECTIVE EQUIPMENT  
None should be needed

EYE PROTECTION  
Safety glasses should be worn

VENTILATION  
LOCAL EXHAUST  
If heated or used in confined spaces  
MECHANICAL (General)  
OTHER  
RESPIRATORY PROTECTION (Specify type)  
If used in a non-ventilated area, use approved respiratory protection

SECTION VIII - SPECIAL PROTECTION INFORMATION

WASTE DISPOSAL METHOD  
Consult a disposal expert and ensure conformity to local regulations.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED  
Flush area with water, eliminate sources of ignition

SECTION VII - SPILL OR LEAK PROCEDURES

STABILITY	UNSTABLE	CONDITIONS TO AVOID	N/A
	STABLE	CONDITIONS TO AVOID	
HAZARDOUS POLYMERIZATION	MAY OCCUR	CONDITIONS TO AVOID	Not applicable
	WILL NOT OCCUR		X
INCOMPATIBILITY (Materials to avoid)			
Alkyene oxides, acid anhydrides, inorganic acids, organic acids, halogens possible -			
HAZARDOUS DECOMPOSITION PRODUCTS			
For propellant-hydrochloride and hydrofluoric acid			
carbonyl fluoride			

SECTION VI - REACTIVITY DATA

EFFECTS OF OVEREXPOSURE  
400 ppm  
Prolonged and or repeated skin contact may be irritating.  
EMERGENCY AND FIRST AID PROCEDURES  
Rinse skin with copious water. If eye contact occurs, flush with water and or delute with boric acid solution and call a physician. If overcome by vapors, remove to fresh air and if necessary give artificial respiration.

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

400 ppm

AR200765

Causes irritation eyes, nose and throat. Liquid will damage eye tissue

PREPARER: G. Uncub

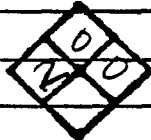
PREPARATION/REVISION DATE: 12-12-85

**SECTION I**

PRODUCT NAME (as it appears on label) <b>Instant Kleen All</b>		PRODUCT NUMBER <b>1604-85, 16S, 24S</b>
EMERGENCY TELEPHONE NO. <b>1-806-372-8523</b>	MANUFACTURER'S D-U-N-S NO. <b>04-234-1578</b>	
HAZARDOUS MATERIAL DESCRIPTION, PROPER SHIPPING NAME, HAZARD CLASS, HAZARD ID NO. (49 CFR 172.101) <b>SECONDARY Compressed Gas N.O.S. Non-Flammable Gas UN 1956/1,1,1 Trichloroethane CMA UN2831</b>		
LISTED WITH ROCKY MOUNTAIN POISON CONTROL DATA BASE? <u>Yes</u>		
CHEMICAL FAMILY <b>Solvent Degreasers</b>	FORMULA <b>see section II</b>	

**SECTION II — HAZARDOUS INGREDIENTS**

CAS REGISTRY NO.	%W	CHEMICAL NAME(S)	Listed as a Carcinogen in NTP, IARC or OSHA 1910(z) (specify)
71-55-6	75.0	1,1,1 Trichloroethane	No
124-38-9	1.25	Carbon Dioxide	No



**RECEIVED**

AUG 1 1986

PPE B  
UN 2831

G. MURAWCZYK

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES  
**Reactive alkali metals.**

**SECTION III — PHYSICAL DATA (COLD FILL ONLY)**

BOILING POINT <b>74 °F 165 °C</b>	SPECIFIC GRAVITY (H <sub>2</sub> O = 1) <b>1.306</b>		
VAPOR PRESSURE @ <u>20</u> °F <u>20</u> °C <input checked="" type="checkbox"/> mm Hg <input type="checkbox"/> psi	PERCENT VOLATILE BY VOLUME (%) <b>100</b>	PERCENT SOLID BY WEIGHT (%) <b>0.00</b>	
VAPOR DENSITY (AIR = 1) <b>4.55</b>	EVAPORATION RATE (n-butyl acetate=1) <b>but .acet. 6.0</b>		
SOLUBILITY IN WATER <b>insol.</b>	pH = <b>N/A</b>		
APPEARANCE AND ODOR <b>Clear water white liquid, low odor</b>	IS MATERIAL: <input type="checkbox"/> LIQUID <input type="checkbox"/> SOLID <input type="checkbox"/> GAS <input type="checkbox"/> PASTE <input type="checkbox"/> POWDER <input type="checkbox"/> AEROSOL		

**SECTION IV — FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT °F _____ °C _____ method used <b>None T.C.C.</b>	FLAMMABLE LIMITS <b>N/A</b>	LEL <b>N/A</b>	UEL <b>N/A</b>
EXTINGUISHING MEDIA <b>N/A</b>	<b>AR200766</b>		
SPECIAL FIRE FIGHTING PROCEDURES <b>None</b>			
UNUSUAL FIRE AND EXPLOSION HAZARDS <b>Do not store aerosol cans in direct sunlight or above 120°F.</b>			

## SECTION V — HEALTH HAZARD DATA

ORIGINAL  
(Red)

ACUTE EFFECTS OF EXPOSURE <b>Inhalation: Lightheadedness</b>	ACGIH TLV <b>513 PPM</b>
<b>Eyes and skin: Mild irritation and defatting</b>	OSHA PEL <b>NE</b>
CHRONIC EFFECTS OF EXPOSURE <p style="text-align: center;"><b>NE</b></p>	
PRIMARY ROUTES OF ENTRY Inhalation <input checked="" type="checkbox"/> Skin Contact <input checked="" type="checkbox"/> Other (specify)	
EMERGENCY AND FIRST AID PROCEDURES <b>Inhalation: Move to fresh air. Eyes and skin: Flush with clear water for 15 minutes. If IRRITATION persists, seek medical attention.</b>	
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: <b>NIF</b>	

## SECTION VI — REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	<b>XX</b>	
INCOMPATIBILITY (materials to avoid) <p style="text-align: center;"><b>Reactive alkali metals</b></p>			
HAZARDOUS DECOMPOSITION PRODUCTS: <p style="text-align: center;"><b>Forced combustion, HCl, COCl<sub>2</sub>, CO</b></p>			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	<b>XX</b>	

## SECTION VII — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED <b>Pick up on suitable absorbant, and place in proper waste receptacle.</b>
WASTE DISPOSAL METHOD <b>Consignment to reclaimer.</b>

## SECTION VIII — SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (specify type) <p style="text-align: center;"><b>none</b></p>		
VENTILATION	LOCAL EXHAUST (Specify Rate) <b>X7ft. <sup>3</sup>/min.</b>	SPECIAL
	MECHANICAL (General) (Specify Rate)	OTHER
PROTECTIVE GLOVES (specify type) <b>BUNA rubber</b>		EYE PROTECTION (specify type) <b>Safety glasses</b>
OTHER PROTECTIVE EQUIPMENT <p style="text-align: center;"><b>None</b></p>		

## SECTION IX — SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING <b>Do not spray near electrical arc or open flame.</b>
OTHER PRECAUTIONS <b>Do not store in direct sunlight or above 120°F.</b>

AR200767

NA NO APPLICABLE  
 NL NOT LISTED

NE NOT ESTABLISHED  
 NIF NO INFORMATION FOUND

FORM NO FE 2



# MATERIAL SAFETY DATA SHEET

Consumer Products Division, Division of Borden, Inc.  
180 EAST BROAD STREET, COLUMBUS, OHIO 43215

Emergency Telephone  
(614) 457-5200  
(OPERATION ALERT)

THE OSHA HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200 REQUIRES THAT THE INFORMATION CONTAINED ON THIS SHEET BE MADE AVAILABLE TO YOUR WORKERS.

INSTRUCT YOUR WORKERS TO HANDLE THIS PRODUCT PROPERLY

NAME: **KRYLON CRYSTAL CLEAR SPRAY COATING**  
TYPE: **AEROSOL ACRYLIC SPRAY**  
APPLICATION: **ITEMS 1301, 1302, 1303, 1304**

22-Nov-85

### SIGNAL WORD—DANGER!

THIS MATERIAL IS A "HEALTH HAZARD" AND/OR A "PHYSICAL HAZARD" AS DETERMINED WHEN REVIEWED ACCORDING TO THE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION 29 CFR PART 1910.1200 "HAZARD COMMUNICATION" STANDARD

### CHEMICAL HAZARD RATING

HEALTH=2(MODERATE)

FIRE=4(EXTREME)

REACTIVITY=0(LEAST)

### 29CFR1910.1200 HAZARDOUS INGREDIENTS/REPORTED HEALTH EFFECTS CAS REGISTRY NO. MATERIAL DESCRIPTION % BY WT.

**67-64-1 ACETONE 11.2**  
CAN CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. SIGNS AND SYMPTOMS MAY INCLUDE HEADACHE, DIZZINESS, NAUSEA, VOMITING, UNCONSCIOUSNESS AND EVEN ASPHYXIATION.  
ACGIH EXPOSURE LIMIT: 750 PPM, 8-HR TWA  
OSHA 29CFR1910 EXPOSURE LIMIT: 1000 PPM, 8-HR TWA  
NIOSH DOCUMENT NUMBER: 78-173

**74-98-6 PROPANE 12.9**  
THIS MATERIAL IS A SIMPLE ASPHYXIANT. SIGNS AND SYMPTOMS OF OVEREXPOSURE INCLUDE CYANOSIS, RESPIRATORY DISTRESS, HEADACHE, DIZZINESS, DROWSINESS, UNCONSCIOUSNESS AND ASPHYXIATION.  
CAN CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION.  
ACGIH EXPOSURE LIMIT: SEE ACGIH TLVS, APPENDIX E  
OSHA 29CFR1910 EXPOSURE LIMIT: 1000 PPM, 8-HR TWA

**75-28-5 ISOBUTANE 17.1**

**108-88-3 TOLUENE 11.1**  
OVEREXPOSURE MAY CAUSE LIVER DAMAGE.  
OVEREXPOSURE MAY CAUSE KIDNEY DAMAGE.  
CAN CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. SIGNS AND SYMPTOMS MAY INCLUDE HEADACHE, DIZZINESS, NAUSEA, VOMITING, UNCONSCIOUSNESS AND EVEN ASPHYXIATION.  
ACGIH EXPOSURE LIMIT: 100 PPM, 8-HR TWA  
OSHA 29CFR1910 EXPOSURE LIMIT: 200 PPM, 8-HR TWA  
NIOSH DOCUMENT NUMBER: 73-11023

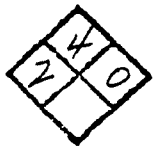
**142-82-5 HEPTANE**  
CAN CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. SIGNS AND SYMPTOMS MAY INCLUDE HEADACHE, DIZZINESS, NAUSEA, VOMITING, UNCONSCIOUSNESS AND EVEN ASPHYXIATION.  
ACGIH EXPOSURE LIMIT: 400 PPM, 8-HR TWA  
OSHA 29CFR1910 EXPOSURE LIMIT: 500 PPM, 8-HR TWA  
NIOSH DOCUMENT NUMBER: 77-151

**1330-20-7 XYLENE 15.8**  
OVEREXPOSURE MAY CAUSE LIVER DAMAGE.  
OVEREXPOSURE MAY CAUSE KIDNEY DAMAGE.  
CAN CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION SIGNS AND SYMPTOMS MAY INCLUDE HEADACHE, DIZZINESS, NAUSEA, VOMITING, UNCONSCIOUSNESS AND EVEN ASPHYXIATION.  
ACGIH EXPOSURE LIMIT: 100 PPM, 8-HR TWA  
OSHA 29CFR1910 EXPOSURE LIMIT: 100 PPM, 8-HR TWA  
NIOSH DOCUMENT NUMBER: 75-168

**64742-94-5 HEAVY AROMATIC SOLVENT NAPHTHA (PETROLEUM) 2.1**  
CAN CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. SIGNS AND SYMPTOMS MAY INCLUDE HEADACHE, DIZZINESS, NAUSEA, VOMITING, UNCONSCIOUSNESS AND EVEN ASPHYXIATION.

### PHYSICAL DATA

VAPOR PRESSURE — SEE CAN PRESSURE  
VAPOR DENSITY HEAVIER THAN AIR  
SOLUBILITY IN WATER — SLIGHT  
SPECIFIC GRAVITY LIGHTER THAN WATER  
EVAP RATE FASTER THAN BUTYL ACETATE  
BOILING POINT: APPEARANCE: ODOR—N.A. PPE  
PERCENT VOLATILE BY WEIGHT: 94 UN **B**  
PERCENT NON-VOLATILE BY WEIGHT: 6 UN **1263**  
PRESSURE IN CONTAINER, PSIG @ 70 F. APPROX. 60



### ACUTE HEALTH HAZARD DATA

SKIN ABSORPTION: NO HAZARDS KNOWN TO BORDEN  
INGESTION: MAY BE HARMFUL IF SWALLOWED.  
INHALATION: MAY BE HARMFUL IF INHALED. LIQUID OR VAPOR CAN CAUSE IRRITATION OF NOSE, THROAT AND LUNGS.  
SKIN: CAUSES IRRITATION.  
EYES: CAUSES IRRITATION.

### HANDLING PRECAUTIONS

INHALATION: AVOID BREATHING VAPOR OR MIST.  
USE WITH ADEQUATE VENTILATION.  
SKIN: AVOID CONTACT WITH SKIN.  
EYES: AVOID CONTACT WITH EYES.  
WASH THOROUGHLY AFTER HANDLING.

### EMERGENCY AND FIRST AID PROCEDURES

INTERNAL: IF SWALLOWED, DO NOT INDUCE VOMITING. CALL A PHYSICIAN IMMEDIATELY.  
INHALATION: REMOVE TO FRESH AIR **AR200768**  
SKIN CONTACT: FLUSH SKIN WITH WATER. IF IRRITATION PERSISTS, CALL A PHYSICIAN.  
EYE CONTACT: IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. CALL A PHYSICIAN.  
SEE REVERSE SIDE

RECEIVED  
AUG 14 1988  
G. MRAWCZAK

DISCLAIMER—SEE REVERSE SIDE

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**FIRE AND EXPLOSION HAZARD DATA**

EXTREMELY FLAMMABLE.  
CONTENTS UNDER PRESSURE; EXPOSURE TO HIGH TEMPERATURE MAY CAUSE BURSTING. AVOID RADIATORS, STOVES, DIRECT SUNLIGHT, OR OTHER HEAT SOURCE.  
DO NOT PUNCTURE OR INCINERATE CONTAINER.  
DO NOT SPRAY NEAR OPEN FLAME.

---

**REACTIVITY DATA**

NORMALLY STABLE AS DEFINED IN FNPA 704-12(4-3.1).  
MAJOR DECOMPOSITION PRODUCTS: CO, CO<sub>2</sub>

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**SPECIAL PROTECTION INFORMATION**

APPROVED RESPIRATORY PROTECTION REQUIRED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL.  
USE GOGGLES OR FACE SHIELD IF SPLASHING IS LIKELY.  
WEAR IMPERVIOUS GLOVES AS REQUIRED TO PREVENT SKIN CONTACT.  
WEARING SAFETY GLASSES, SAFETY SHOES, HARD HATS AND SUITABLE CLOTHING IS STANDARD PRACTICE IN MANY INDUSTRIAL OPERATIONS.

---

**SPILL OR LEAK PROCEDURES**

ELIMINATE ALL IGNITION SOURCES.  
SOAK UP WITH ABSORBENT MATERIAL AND REMOVE TO A CHEMICAL DISPOSAL AREA.  
PREVENT ENTRY INTO NATURAL BODIES OF WATER.

---

**WASTE DISPOSAL METHOD**

DISPOSE OF ACCORDING TO LOCAL, STATE, AND FEDERAL REQUIREMENTS.  
EMPTY CONTAINER: MAY CONTAIN EXPLOSIVE VAPORS. DO NOT CUT, PUNCTURE OR WELD ON OR NEARBY. INCINERATION WILL CAUSE CONTAINER TO BURST VIOLENTLY.

---

**STORAGE PRECAUTIONS**

DO NOT STORE AT TEMPERATURES OVER 120 F.

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**DOT CLASSIFICATION**

ORM-D CONSUMER COMMODITY

ORIGINAL  
(Red)

NOR (M)

KD-1301

11/13/85

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**DISCLAIMER**

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY BORDEN, except that the product shall conform to contracted specifications, and that the product does not infringe any valid United States patent. The information provided herein was believed by Borden to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information, to comply with all laws and procedures applicable to the safe handling and use of product and to determine the suitability of the product for its intended use. Buyer's exclusive remedy shall be for damages and no claim of any kind, whether as to product delivered or for non-delivery of product, and whether based on contract, breach of warranty, negligence or otherwise shall be greater in amount than the purchase price of the quantity of product in respect of which damages are claimed. In no event shall Seller be liable for incidental or consequential damages, whether Buyer's claim is based on contract, breach of warranty, negligence or otherwise.

AP 200769





**6. HEALTH HAZARD DATA**

Primary Routes of Entry Inhalation and skin contact

Signs and Symptoms of Exposure

1. Acute Overexposure Inhalation - headaches, dizziness, anesthesia, unconsciousness. Eyes - causes pain and some irritation. Skin--causes irritation on repeated exposures

2. Chronic Overexposure Repeated overexposures may cause liver and kidney effects.

Medical Conditions Generally Aggravated by Exposure High levels (8000 ppm +) of vapor may cause cardiac arrhythmias

Chemical Listed as Carcinogen or Potential Carcinogen

National Toxicology Program

Yes   
No

IARC Monographs

Yes   
No

OSHA

Yes   
No

Emergency and First Aid Procedures (If symptoms persist, call a physician)

1. Inhalation Remove to fresh air, apply artificial respiration if necessary.

2. Eyes Flush for 15 minutes with large amounts of water.

3. Skin Remove contaminated clothing. Wash exposed skin with soap.

4. Ingestion Do not induce vomiting - Call a physician.

**7. SPILL OR LEAK PROCEDURES**

Precautions to be taken in Handling and Storage

Store in a cool dry area.

Steps to be taken in case

Materials is released or spilled

Usually not a problem with aerosols - Area should be ventilated and absorbent used to pick up excess material.

Waste Disposal Discarded filled cans or partially used cans are Hazardous waste - Dispose of in conformance to Regulations

**8. SPECIAL PRECAUTIONS AND USE DIRECTIONS**

Avoid prolonged skin contact or breathing of vapors. Since vapors are heavier than air, aerosols should not be used in confined areas or low spots without adequate ventilation. If vapors are suspected in a low area, do not enter unless special breathing apparatus is used and an observer is present for assistance.

Keep aerosols away from heat.

AR200771

PREPARED BY: A. P. Reed

ORIGINAL DATE OR DATE OF REVISION Nov. 1985



Gillette Medical Evaluation Laboratories  
 1413 Research Boulevard  
 Rockville, Maryland 20850  
 301-424-2000

NFPA704M  
 HAZARD RATING

Fire	NA	Reactivity
Health	NA	Other
	NA	

### MATERIAL SAFETY DATA SHEET

NAME: PAPER MATE OFFICE PRODUCTS CORRECTION FLUID

CAS NO: NA

Effective Date: February 13, 1985

REVISION 1

#### A. IDENTIFICATION

Composition*  1,1,1-Trichloroethane (71-55-6) Titanium Dioxide (13463-67-7) Resins, Dispersants, Solvents	%	Formula: NA
		Molecular Weight: NA
		Synonyms Liquid Paper, Correction Fluid

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PPE A  
UN NA

#### B. PHYSICAL DATA

Boiling Point <u>165</u> °F <u>74</u> °C	Melting Point <u>NA</u> °F <u>NA</u> °C	Freezing Point <u>NA</u> °F <u>NA</u> °C
Specific Gravity (H <sub>2</sub> O=1) <u>1.32</u>	Vapor Density (air=1) <u>4.55</u>	Vapor Pressure @ <u>68</u> °F <u>100</u> mmHg
Evaporation ( <u>Ether</u> =1) <u>~2.7</u>	Saturation in Air (by volume @ <u>NA</u> °F) <u>NA</u> %	Autoignition Temperature <u>NA</u> °F <u>NA</u> °C
% Volatiles (by volume) <u>~65</u>	Solubility in Water <u>&lt; 1%</u>	pH <u>NA</u>

Appearance/Odor: White or colored fluid, solvent odor

Flash Point and Test Method(s): None

Flammable Limits in Air (@25°C High energy ignition source)  
 (% by volume) Lower 8.0 % Upper 10.5 %

#### C. REACTIVITY

Stability	Conditions to Avoid	Polymerization	Conditions to Avoid
stable <input checked="" type="checkbox"/>	NA	may occur	NA
unstable		will not occur <input checked="" type="checkbox"/>	
Incompatible Materials For solvent: caustics, aluminum, barium, magnesium, zinc, sodium, potassium		Hazardous Decomposition Products Thermal degradation, e.g. open flame, can produce small amounts of phosgene, hydrogen chloride and chlorine	

\*IF MULTIPLE INGREDIENTS INCLUDE CAS NUMBERS FOR EACH NA=NOT AVAILABLE

Footnotes: Physical data refers to solvent.

AR200772

**D. — HEALTH HAZARD DATA**

Occupational Exposure Limits (PEL'S, TLV'S, etc.)

8 hr. TWA for 1,1,1-Trichloroethane = 350 ppm (OSHA, ACGIH). Not anticipated under foreseeable use conditions.

Warning Signals

NA

Routes/Effects of Exposure

1. Inhalation None anticipated under foreseeable use conditions. If vapors are deliberately concentrated and inhaled (abuse) following symptoms may occur: respiratory irritation, dizziness, drowsiness, headache, nausea, unconsciousness, cardiac sensitization, coma and death.

2. Ingestion

None anticipated under foreseeable use conditions. Depending on amount ingested most of the symptoms described above may occur. LD50 in rats = >5 ml/kg.

3. Skin

a. Contact

None anticipated under use conditions. Irritation may occur if contact is prolonged/repeated.

b. Absorption

None anticipated under foreseeable use conditions. Solvent can be absorbed through skin (prolonged contact), but not likely in toxic amounts.

4. Eye Contact

Irritation

5. Other

NA

**E. — ENVIRONMENTAL IMPACT**

1. Applicable Regulations

2. DOT Hazard Class —

NA

3. DOT Shipping Name —

Environmental Effects

NA

ORIGINAL  
(Red)

AR200773

## F. — EXPOSURE CONTROL METHODS

### Engineering Controls

None under normal use conditions.

### Eye Protection

None under normal use conditions

### Skin Protection

None under normal use conditions

### Respiratory Protection

None under normal use conditions

### Other

Product is non-hazardous when used as directed in an office/room with normal air circulation.

## G. — WORK PRACTICES

### Handling and Storage

No unusual handling or storage when used as directed; when stored in large quantities (as in warehouse), it should be in a well-ventilated, cool area.

### Normal Clean Up

Pick up spills with towels, tissues, etc. and place in trash.

### Waste Disposal Methods

Dispose as regular trash.

AR200774

## H. EMERGENCY PROCEDURES

Steps to be taken if material is released to the environment or spilled in the work area

Not applicable

ORIGINAL  
(Red)

Fire and Explosion Hazard

Hazardous decomposition products

Extinguishing Media

As for adjacent fire, dry chemical, foam, carbon dioxide

Firefighting Procedures

In fires involving large quantities of product use self-contained breathing apparatus.

## I. - FIRST AID AND MEDICAL EMERGENCY PROCEDURES

Eyes

Flush with plenty of water. If irritation persists obtain medical attention.

Skin

Wash with soap and water.

Inhalation

None normally anticipated. In abuse situation remove to fresh air and consult physician immediately.

Ingestion

Consult physician.

Notes to Physician

Do not use sympathomimetic agents (e.g. epinephrine) in halogenated hydrocarbon poisoning because of possible induction of ventricular fibrillation.

AR200775

The information contained in the Material Safety Data Sheet is based on data considered to be accurate, however, no warranty is expressed or implied regarding the accuracy of the data or the results to be obtained from the use thereof.

74 HUDSON AVENUE, TENAFLY, NJ 07670  
EMERGENCY TEL. NO. (201) 567-3000

DATE September 8, 1985

**SECTION I. PRODUCT IDENTIFICATION**

TRADE NAME <b>LUBRISIL</b>
FORMULA <b>1,1,1-Trichloroethane, Silicone</b>
CHEMICAL FAMILY <b>Aerosol lubricant</b>

**SECTION II. HAZARDOUS INGREDIENTS**

COMPONENT OR MATERIAL CHEMICAL NAMES	CAS NO.	% by	TLV (Units)
1,1,1-Trichloroethane	71-55-6	92	350PPM



PPE **B**  
UN **2831**

**RECEIVED**

MAY 27 1986

C. MURAWCZYK

**SECTION III. PHYSICAL DATA**

BOILING POINT (°F) 165	VAPOR PRESSURE, mm Hg @ 20°C (68°F) (at 30°F) 144
EVAPORATION RATE (ETHER =1) 0.5	VAPOR DENSITY (AIR=1) @ 60-80°F Greater than 1
SOLUBILITY IN H <sub>2</sub> O, % by wt @ 20°C (68°F) Insoluble	% VOLATILES by VOL. @ 70°F 92
SPECIFIC GRAVITY H <sub>2</sub> O =1 @ 75°F 1.320	pH N.A. (non-aqueous)
APPEARANCE & ODOR Hazy liquid with chlorinated solvent odor (aerosol)	

**SECTION IV. FIRE AND EXPLOSION DATA**

FLASH POINT (Method Used) None	FLAMMABLE EXPLOSIVE LIMITS	UPPER N.A.	LOWER N.A.
EXTINGUISHING MEDIA CO <sub>2</sub> , dry powders (unlikely to burn)			
SPECIAL FIRE FIGHTING PROCEDURES Gas masks if product is decomposing. Caution against explosion of overheated cans.			
UNUSUAL FIRE & EXPLOSION HAZARDS Hydrochloric acid may be formed in combustion products.			

**SECTION V. EMERGENCY AND FIRST AID PROCEDURES**

EYES Flush with water for 15 mins. Consult physician.
SKIN Wash with soap and water and apply a good skin cream.
INHALATION Remove to fresh air. Consult physician.
INGESTION Do not induce vomiting; give plenty of milk. Consult physician.

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**SECTION VI. HEALTH HAZARD DATA**

**THRESHOLD LIMIT VALUE**

See Section II

**EFFECTS OF OVEREXPOSURE:  
INHALATION**

Prolonged inhalation may have anesthetic effect.

ORIGINAL  
(Red)

**SKIN**

Will defat skin. May cause irritation on prolonged exposure.

**EYES**

Highly irritating to eyes on contact.

**CHRONIC OVEREXPOSURE EFFECTS**

Not ascertained.

**SECTION VII. REACTIVITY DATA**

**CONDITIONS CONTRIBUTING TO INSTABILITY**

Product is stable.

**INCOMPATIBILITY**

Strong oxidizers.

**HAZARDOUS DECOMPOSITION PRODUCTS**

Hydrochloric acid may form in the event of fire.

**CONDITIONS CONTRIBUTING TO POLYMERIZATION**

Will not occur.

**SECTION VIII. SPILL OR LEAK PROCEDURES**

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED** Provide adequate ventilation; Hose down with water or seal with absorbent materials. Remove clothing, wet with product and wash before reuse.  
**NEUTRALIZING CHEMICALS**

N.A.

**WASTE DISPOSAL METHOD**

Do not incinerate. Dispose of in accordance with local, state and federal EPA regulations.

**SECTION IX. VENTILATION AND PERSONAL PROTECTIVE EQUIPMENT**

**VENTILATION REQUIREMENTS**

Floor level fans are recommended.

<b>SPECIAL PERSONAL PROTECTIVE EQUIPMENT</b>	<b>RESPIRATORY</b> None under normal use conditions.
	<b>EYE</b> Splash proof goggles.
	<b>GLOVES</b> Neoprene, if prolonged or repeated contact is anticipated.
	<b>OTHER CLOTHING &amp; EQUIPMENT</b> Eye bath in area.

**SECTION X. SPECIAL PRECAUTIONS INCLUDING STORAGE**

**PRECAUTIONS TO BE TAKEN IN HANDLING & STORAGE** (Always refer to label directions when using.)  
Keep away from heat (aerosol can). Use with adequate ventilation.

AR200777

Avoid contact with skin, eyes and clothing. Do not puncture can.

**D.O.T. SHIPPING CLASSIFICATION**

Compressed Gas, N.O.S. UN1956

*incomplete: needs reactivity data.*

CHAPCO SEAM BOND SOLVENT

20  
 NONE  
 2831

Form Approved OMB No. 44-R1387

U.S. DEPARTMENT OF LABOR  
 Occupational Safety and Health Administration

# MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing, Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

## SECTION I

MANUFACTURER'S NAME Chicago Adhesive Products Company		EMERGENCY TELEPHONE NO. 312-581-1300
ADDRESS (Number, Street, City, State, and ZIP Code) 4658 W. 60th Street, Chicago, IL 60629		
CHEMICAL NAME AND SYNONYMS		TRADE NAME AND SYNONYMS 116 Solvent
CHEMICAL FAMILY	FORMULA Proprietary	

## SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Unit)	ALLOYS AND METALLIC COATINGS	%	TLV (Unit)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS 1,1,1-Trichlorethane	97.5	350ppm	FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Unit)
<b>RECEIVED</b>					
APR 28 1987					
C. MURAWCZYK					

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	165	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	1.29
VAPOR PRESSURE (mm Hg.) @ 20°C	100	PERCENT VOLATILE BY VOLUME (%)	99.5
VAPOR DENSITY (AIR=1)	4.5	EVAPORATION RATE (_____ = 1)	5.5
SOLUBILITY IN WATER	Negligible		
APPEARANCE AND ODOR	Thin viscosity liquid		

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Let	Uet
EXTINGUISHING MEDIA				
SPECIAL FIRE FIGHTING PROCEDURES	None	AR200778		
UNUSUAL FIRE AND EXPLOSION HAZARDS				
	None			



SECTION V - HEALTH HAZARD DATA	
THRESHOLD LIMIT VALUE	350 ppm
EFFECTS OF OVEREXPOSURE	Slight anesthetic effect may occur in range of 500-1000 ppm. At higher concentrations dizziness, central nervous system depression may occur.
EMERGENCY AND FIRST AID PROCEDURES	Remove to fresh air; keep warm and quiet; if breathing has stopped, give artificial respiration, and summon medical aid.

SECTION VI - REACTIVITY DATA			
STABILITY	UNSTABLE		CONDITIONS TO AVOID Vapor laden air should not be permitted to contact open flames, extremely hot surfaces or welding arcs.
	STABLE		
INCOMPATIBILITY (Materials to avoid) Water-slow hydrolysis produces small amounts of corrosive acid.			
HAZARDOUS DECOMPOSITION PRODUCTS			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES	
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Return material to closed containers. Ventilate area.	
WASTE DISPOSAL METHOD Bury or allow solvent to evaporate at safe distance from habitation.	

SECTION VIII - SPECIAL PROTECTION INFORMATION			
RESPIRATORY PROTECTION (Specify type) None required when used in adequately ventilated area. Hydrocarbon vapor cannister or self-contained breathing apparatus if needed.			
VENTILATION	LOCAL EXHAUST		SPECIAL
	MECHANICAL (General)	Provide to control TLV	OTHER
PROTECTIVE GLOVES	Not normally required	EYE PROTECTION	Not normally required
OTHER PROTECTIVE EQUIPMENT			

SECTION IX - SPECIAL PRECAUTIONS	
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Close container after use.	
OTHER PRECAUTIONS Avoid breathing vapors over 350 ppm for extended periods or peak concentrations over 550 ppm	

**Manufacturer:** Xerox Corporation  
Rochester, New York 14644

**Emergency Tel. No. :** (716) 422-2177  
**Information Tel. No.:** (800) 828-6571

**Section I - Product Identification**

**Trade Names/Synonyms:** 1025/1038/2510  
Black Toner

**Part No. :** 6R121, 6R122, 6R133, 6R234

**Chemical Name:** Thermoplastic powder

Ingredients

CAS No.

Styrene, Acrylate Copolymer (60-65%)	25213-39-2
Acrylic Resin (20-25%)	-----
Carbon Black (10-15%)	1333-86-4
Polyolefin (<10%)	-----
Amorphous Silica (<1%)	7631-86-9

**Section II - Emergency and First Aid**

**Eyes:** Flush with water.

**Skin:** Wash with soap and water.

**Inhalation:** Remove from exposure.

**Ingestion:** Dilute stomach contents with several glasses of water.

**Primary Route of Entry:** Inhalation

**Symptoms of Overexposure:** Minimal respiratory tract irritation may occur as with exposure to large amounts of any non-toxic dust.

**Additional Information:** See Sections V and VII.  
Further information on file in Poisindex.

**Section III - Toxicology and Health Information**

*This material has been extensively tested and evaluated by Xerox Corporation. When used as intended, it does not represent any known health or safety hazard.*

**Oral LD<sub>50</sub>:** >5 g/kg (Rats) practically non-toxic.

**Dermal LD<sub>50</sub>:** >2 g/kg (Rabbits) practically non-toxic.

**Inhalation LC<sub>50</sub>:** >6.6 mg/l (Rats) practically non-toxic.\*

**Eye Irritation:** (Rabbits) non-irritating

**Skin Sensitization:** (Guinea Pigs) non-sensitizing

**Skin Irritation:** (Rabbits) non-irritating

**Human Patch:** non-sensitizing, non-irritating

**Mutagenicity:** No mutagenicity detected in Ames, Pol A + /A-, WP<sub>2</sub> and Micronucleus Assays.

**Aquatic LC<sub>50</sub>:** >500 mg/l (Fathead Minnows) non-toxic

**TLV:** 10 mg/m<sup>3</sup> (Total Dust)  
5mg/m<sup>3</sup> (Respirable Dust)

**PEL:** 15 mg/m<sup>3</sup> (Total Dust)  
5mg/m<sup>3</sup> (Respirable Dust)

**<sup>1</sup>XEL:** 5 mg/m<sup>3</sup> (Total Dust)

**Additional Information:**\*Not tested to the highest dose or concentration.

<sup>1</sup>XEL - Xerox Exposure Limit

AR200780

**Section IV - Physical Data**

Appearance/Odor: Black powder / faint odor

Boiling Point: N.A.

Solubility in Water: Negligible

Evaporation Rate: N.A.

Vapor Density (Air = 1): N.A.

Volatile N.A. % (Wgt.) N.A. % (Vol.)

Softening Range: 85° C to 100° C

Melting Point: N.A.

Specific Gravity (H<sub>2</sub>O = 1): 1

Vapor Pressure (mm Hg): N.A.

pH = N.A.

**Section V - Fire and Explosion Data**

Flash Point (Method Used): N.A.

Flammable LEL: N.A.

Limits UEL: N.A.

Extinguishing Media: Water, Foam, Dry chemical

Special Fire Fighting Procedures: Avoid inhalation of smoke.

Fire and Explosion Hazards: Toner is a combustible powder. When dispersed in air, it forms explosive mixtures.

**Section VI - Reactivity Data**

Stability:

Unstable

Stable

X

Hazardous

Polymerization:

May Occur

Will Not Occur

X

Hazardous Decomposition Products: Products of combustion are toxic. Avoid breathing smoke.

Incompatibility (Materials to Avoid): None

**Section VII - Special Protection Information**

Respiratory Protection: None required when used as intended in Xerox equipment.

Eye Protection: None required when used as intended in Xerox equipment.

Protective Gloves: None required when used as intended in Xerox equipment.

Other: For use other than in normal customer - operating procedures (such as in bulk toner processing facilities), goggles and respirators may be required. For more information, contact Xerox.

**Section VIII - Special Precautions**

Handling and Storage: None

Conditions to Avoid: None

**Section IX - Spill, Leak, and Disposal Procedures**

For Spills or Leakage: Loose toner can be removed using a vacuum cleaner. Residue can be removed with soap and cold water. After removal of loose toner, garments may be washed or dry-cleaned.

Waste Disposal Method: Do not incinerate. No special techniques beyond normal practice. Insure conformity with federal, state or local regulations.

AR200781

**Section X - Transportation Information**

DOT Proper Shipping Name: Not Regulated

Hazard Classification: N.A.

ID Number: N.A.

**Manufacturer:** Xerox Corporation  
 Rochester, New York 14644

**Emergency Tel. No. :** (716) 422-2177  
**Information Tel. No.:** (800) 828-6571

**Section I - Product Identification**

**Trade Names/Synonyms:** 1025/1038 Blue Toner      **Part No. :** 6R124

**Chemical Name:** None

Ingredients

CAS No.

Styrene, Acrylate Copolymer (45-50%)	25213-39-2
Acrylic Resin (30-40%)	-----
Blue Pigment; Phthalocyanine Derivative (<10%)	-----
Polyolefin (<5%)	-----
Tin Oxides (<5%)	-----
Magenta Pigment; Quinoacridine Derivative (<2%)	-----
Amorphous Silica (<2%)	7631-86-9

**Section II - Emergency and First Aid**

**Eyes:** Flush with water.  
**Skin:** Wash with soap and water.  
**Inhalation:** Remove from exposure.  
**Ingestion:** Dilute stomach contents with several glasses of water.  
**Primary Route of Entry:** Inhalation  
**Symptoms of Overexposure:** Minimal respiratory tract irritation may occur as with exposure to large amounts of any non-toxic dust.

**Additional Information:** See Sections V and VII.  
 Further information on file in Poisindex.

**Section III - Toxicology and Health Information**

*This material has been extensively tested and evaluated by Xerox Corporation. When used as intended, it does not represent any known health or safety hazard.*

<b>Oral LD<sub>50</sub>:</b> >5 g/kg (Rats) practically non-toxic.	<b>TLV:</b> 10 mg/m <sup>3</sup> (Total Dust)
<b>Dermal LD<sub>50</sub>:</b> >2 g/kg (Rabbits) practically non-toxic.	5mg/m <sup>3</sup> (Respirable Dust)
<b>Inhalation LC<sub>50</sub>:</b> >5 mg/l (Rats) practically non-toxic.*	
<b>Eye Irritation:</b> (Rabbits) non-irritating	
<b>Skin Sensitization:</b> (Guinea Pigs) non-sensitizing	<b>PEL:</b> 15 mg/m <sup>3</sup> (Total Dust)
<b>Skin Irritation:</b> (Rabbits) non-irritating	5mg/m <sup>3</sup> (Respirable Dust)
<b>Human Patch:</b> Non-irritating, non-sensitizing	
<b>Mutagenicity:</b> No mutagenicity detected in Ames and Micronucleus Assays.	
<b>Aquatic LC<sub>50</sub>:</b> >500 mg/l (Fathead Minnows) non-toxic	<b>1XEL:</b> 5 mg/m <sup>3</sup> (Total Dust)

**Additional Information:** The information noted above is based on the toxicity data for 6500 and 2830 Toners. \*Not tested to the highest dose or concentration.

**AR200782**

1XEL - Xerox Exposure Limit

### Section IV - Physical Data

Appearance/Odor: Blue powder / faint odor  
 Boiling Point: N.A.  
 Solubility in Water: Negligible  
 Evaporation Rate: N.A.  
 Vapor Density (Air = 1): N.A.  
 Volatile N.A. % (Wgt.) N.A. % (Vol.)

Softening Range: 85°C to 100°C  
 Melting Point: N.A.  
 Specific Gravity (H<sub>2</sub>O = 1): 1  
 Vapor Pressure (mm Hg): N.A.  
 pH = N.A.

### Section V - Fire and Explosion Data

Flash Point (Method Used): N.A.  
 Extinguishing Media: Water, Foam, Dry chemical  
 Special Fire Fighting Procedures: Avoid inhalation of smoke.  
 Fire and Explosion Hazards: Toner is a combustible powder. When dispersed in air, it forms explosive mixtures.

Flammable Limits LEL: N.A.  
 UEL: N.A.

ORIGINAL (Red)

### Section VI - Reactivity Data

Stability:	Unstable		Hazardous Polymerization:	May Occur	
	Stable	X		Will Not Occur	X

Hazardous Decomposition Products: Products of combustion are toxic. Avoid breathing smoke.  
 Incompatibility (Materials to Avoid): None

### Section VII - Special Protection Information

Respiratory Protection: None required when used as intended in Xerox equipment.  
 Eye Protection: None required when used as intended in Xerox equipment.  
 Protective Gloves: None required when used as intended in Xerox equipment.  
 Other: For use other than in normal customer - operating procedures (such as in bulk toner processing facilities), goggles and respirators may be required. For more information, contact Xerox.

### Section VIII - Special Precautions

Handling and Storage: None  
 Conditions to Avoid: None

### Section IX - Spill, Leak, and Disposal Procedures

For Spills or Leakage: Loose toner can be removed using a vacuum cleaner. Residue can be removed with soap and cold water. After removal of loose toner, garments may be washed or dry-cleaned.  
 Waste Disposal Method: Do not incinerate. No special techniques beyond normal practice. Insure conformity with federal, state or local regulations.

AR200783

### Section X - Transportation Information

DOT Proper Shipping Name: Not Regulated  
 Hazard Classification: N.A.  
 ID Number: N.A.

Manufacturer: Xerox Corporation  
 Rochester, New York 14644  
 Emergency Tel. No. : (716) 422-2177  
 Information Tel. No.: (800) 828-6571

**Section I - Product Identification**

Trade Names/Synonyms: 1025/1038 Brown Toner Part No. : 6R126

Chemical Name: None

<u>Ingredients</u>	<u>CAS No.</u>
Styrene Acrylate Copolymer (45-50%)	25213-39-2
Acrylic Resin (30-35%)	-----
Yellow Pigment; Acetylacetamide Derivative (<10%)	-----
Magenta Pigment; Quinoacridine Derivative (<5%)	-----
Polyolefin (<5%)	-----
Tin Oxides (<5%)	-----
Amorphous Silica (<1%)	7631-86-9

**Section II - Emergency and First Aid**

Eyes: Flush with water.  
 Skin: Wash with soap and water.  
 Inhalation: Remove from exposure.  
 Ingestion: Dilute stomach contents with several glasses of water.  
 Primary Route of Entry: Inhalation  
 Symptoms of Overexposure: Minimal respiratory tract irritation may occur as with exposure to large amounts of any non-toxic dust.

Additional Information: See Sections V and VII.  
 Further information on file in Poisindex.

**Section III - Toxicology and Health Information**

*This material has been extensively tested and evaluated by Xerox Corporation. When used as intended, it does not represent any known health or safety hazard.*

Oral LD <sub>50</sub> : >5 g/kg (Rats) practically non-toxic.	TLV: 10 mg/m <sup>3</sup> (Total Dust)
Dermal LD <sub>50</sub> : >2 g/kg (Rabbits) practically non-toxic.	5mg/m <sup>3</sup> (Respirable Dust)
Inhalation LC <sub>50</sub> : >5 mg/l (Rats) practically non-toxic.*	
Eye Irritation: (Rabbits) non-irritating	
Skin Sensitization: (Guinea Pigs) non-sensitizing	PEL: 15 mg/m <sup>3</sup> (Total Dust)
Skin Irritation: (Rabbits) non-irritating	5mg/m <sup>3</sup> (Respirable Dust)
Human Patch: Non-irritating, non-sensitizing	
Mutagenicity: No mutagenicity detected in Ames and Micronucleus Assays.	
Aquatic LC <sub>50</sub> : >500 mg/l (Fathead Minnows) non-toxic	1XEL: 5 mg/m <sup>3</sup> (Total Dust)

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Additional Information: The information noted above is based on the toxicity data for 6500 and 2830 Toners. \*Not tested to the highest dose or concentration.

<sup>1</sup>XEL - Xerox Exposure Limit

**Section IV - Physical Data**

Appearance/Odor: Brown powder / faint odor  
 Boiling Point: N.A.  
 Solubility in Water: Negligible  
 Evaporation Rate: N.A.  
 Vapor Density (Air = 1): N.A.  
 Volatile N.A. % (Wgt.) N.A. % (Vol.)

Softening Range: 85° C to 100° C  
 Melting Point: N.A.  
 Specific Gravity (H<sub>2</sub>O = 1): 1  
 Vapor Pressure (mm Hg): N.A.  
 pH = N.A.

**Section V - Fire and Explosion Data**

Flash Point (Method Used): N.A.

Flammable LEL: N.A.  
 Limits UEL: N.A.

Extinguishing Media: Water, Foam, Dry chemical

Special Fire Fighting Procedures: Avoid inhalation of smoke.

Fire and Explosion Hazards: Toner is a combustible powder. When dispersed in air, it forms explosive mixtures.

**Section VI - Reactivity Data**

Stability:

Unstable	
Stable	X

Hazardous

Polymerization:

May Occur	
Will Not Occur	X

Hazardous Decomposition Products: Products of combustion are toxic. Avoid breathing smoke.

Incompatibility (Materials to Avoid): None

**Section VII - Special Protection Information**

Respiratory Protection: None required when used as intended in Xerox equipment.

Eye Protection: None required when used as intended in Xerox equipment.

Protective Gloves: None required when used as intended in Xerox equipment.

Other: For use other than in normal customer - operating procedures (such as in bulk toner processing facilities), goggles and respirators may be required. For more information, contact Xerox.

**Section VIII - Special Precautions**

Handling and Storage: None

Conditions to Avoid: None

**Section IX - Spill, Leak, and Disposal Procedures**

For Spills or Leakage: Loose toner can be removed using a vacuum cleaner. Residue can be removed with soap and cold water. After removal of loose toner, garments may be washed or dry-cleaned.

Waste Disposal Method: Do not incinerate. No special techniques beyond normal practice. Insure conformity with federal, state or local regulations.

**Section X - Transportation Information**

DOT Proper Shipping Name: Not Regulated

Hazard Classification: N.A.

ID Number: N.A.

AR200785

**Manufacturer:** Xerox Corporation  
Rochester, New York 14644

**Emergency Tel. No. :** (716) 422-2177  
**Information Tel. No.:** (800) 828-6571

## Section I - Product Identification

**Trade Names/Synonyms:** 1025/1038 Green Toner

**Part No. :** 6R125

**Chemical Name:** None

*Original  
file*

<u>Ingredients</u>	<u>CAS No.</u>
Styrene, Acrylate Copolymer (60-65%)	25213-39-2
Acrylic Resin (20-25%)	-----
Polyolefin (<10%)	-----
Blue Pigment; Phthalocyanine Derivative (<5%)	-----
Yellow Pigment; Acetylacetamide Derivative (<5%)	-----
Amorphous Silica (<1%)	7831-86-7

## Section II - Emergency and First Aid

**Eyes:** Flush with water.

**Skin:** Wash with soap and water.

**Inhalation:** Remove from exposure.

**Ingestion:** Dilute stomach contents with several glasses of water.

**Primary Route of Entry:** Inhalation

**Symptoms of Overexposure:** Minimal respiratory tract irritation may occur as with exposure to large amounts of any non-toxic dust.

**Additional Information:** See Sections V and VII.  
Further information on file in Poisindex.

## Section III - Toxicology and Health Information

*This material has been extensively tested and evaluated by Xerox Corporation. When used as intended, it does not represent any known health or safety hazard.*

**Oral LD<sub>50</sub>:** >5 g/kg (Rats) practically non-toxic.

**Dermal LD<sub>50</sub>:** >2 g/kg (Rabbits) practically non-toxic.

**Inhalation LC<sub>50</sub>:** >5 mg/l (Rats) practically non-toxic.\*

**Eye Irritation:** (Rabbits) non-irritating

**Skin Sensitization:** (Guinea Pigs) non-sensitizing

**Skin Irritation:** (Rabbits) non-irritating

**Human Patch:** Non-irritating, non-sensitizing

**Mutagenicity:** No mutagenicity detected in Ames and Micronucleus Assays.

**Aquatic LC<sub>50</sub>:** >500 mg/l (Fathead Minnows) non-toxic

**TLV:** 10 mg/m<sup>3</sup> (Total Dust)  
5mg/m<sup>3</sup> (Respirable Dust)

**PEL:** 15 mg/m<sup>3</sup> (Total Dust)  
5mg/m<sup>3</sup> (Respirable Dust)

**<sup>1</sup>XEL:** 5 mg/m<sup>3</sup> (Total Dust)

**Additional Information:** The information noted above is based on the toxicity data for 6500 and 2830 Toners. \*Not tested to the highest dose or concentration.

<sup>1</sup>XEL - Xerox Exposure Limit

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**Section IV - Physical Data**

Appearance/Odor: Green powder / faint odor  
 Boiling Point: N.A.  
 Solubility in Water: Negligible  
 Evaporation Rate: N.A.  
 Vapor Density (Air = 1): N.A.  
 Volatile N.A. % (Wgt.) N.A. % (Vol.)

Softening Range: 85°C to 100°C  
 Melting Point: N.A.  
 Specific Gravity (H<sub>2</sub>O = 1): 1  
 Vapor Pressure (mm Hg): N.A.  
 pH = N.A.

ORIGINAL  
(Red)**Section V - Fire and Explosion Data**

Flash Point (Method Used): N.A.

Flammable LEL: N.A.  
 Limits UEL: N.A.

Extinguishing Media: Water, Foam, Dry chemical

Special Fire Fighting Procedures: Avoid inhalation of smoke.

Fire and Explosion Hazards: Toner is a combustible powder. When dispersed in air, it forms explosive mixtures.

**Section VI - Reactivity Data**

Stability:

Unstable	
Stable	X

Hazardous

Polymerization:

May Occur

Will Not Occur X

Hazardous Decomposition Products: Products of combustion are toxic. Avoid breathing smoke.

Incompatibility (Materials to Avoid): None

**Section VII - Special Protection Information**

Respiratory Protection: None required when used as intended in Xerox equipment.

Eye Protection: None required when used as intended in Xerox equipment.

Protective Gloves: None required when used as intended in Xerox equipment.

Other: For use other than in normal customer - operating procedures (such as in bulk toner processing facilities), goggles and respirators may be required. For more information, contact Xerox.

**Section VIII - Special Precautions**

Handling and Storage: None

Conditions to Avoid: None

**Section IX - Spill, Leak, and Disposal Procedures**

For Spills or Leakage: Loose toner can be removed using a vacuum cleaner. Residue can be removed with soap and cold water. After removal of loose toner, garments may be washed or dry-cleaned.

Waste Disposal Method: Do not incinerate. No special techniques beyond normal practice. Insure conformity with federal, state or local regulations.

**Section X - Transportation Information**

AR200787

DOT Proper Shipping Name: Not Regulated

Hazard Classification: N.A.

ID Number: N.A.

**Manufacturer:** Xerox Corporation  
 Rochester, New York 14644

**Emergency Tel. No. :** (716) 422-2177  
**Information Tel. No.:** (800) 828-6571

*ORIGINAL*

**Section I - Product Identification**

**Trade Names/Synonyms:** 1025/1038 Red Toner      **Part No. :** 6R123

**Chemical Name:** None

<u>Ingredients</u>	<u>CAS No.</u>
Styrene, Acrylate Copolymer (60-65%)	25213-39-2
Acrylic Resin (25-30%)	-----
Red Pigment; Barium Salt (<10%)	-----
Polyolefin (<5%)	-----
Magenta Pigment; Quinoacridine Derivative (<1%)	-----
Amorphous Silica (<1%)	7631-86-9

**Section II - Emergency and First Aid**

**Eyes:** Flush with water.  
**Skin:** Wash with soap and water.  
**Inhalation:** Remove from exposure.  
**Ingestion:** Dilute stomach contents with several glasses of water.  
**Primary Route of Entry:** Inhalation  
**Symptoms of Overexposure:** Minimal respiratory tract irritation may occur as with exposure to large amounts of any non-toxic dust.

**Additional Information:** See Sections V and VII.  
 Further information on file in Poisindex.

**Section III - Toxicology and Health Information**

*This material has been extensively tested and evaluated by Xerox Corporation. When used as intended, it does not represent any known health or safety hazard.*

<b>Oral LD<sub>50</sub>:</b> >5 g/kg (Rats) practically non-toxic.	<b>TLV:</b> 10 mg/m <sup>3</sup> (Total Dust)
<b>Dermal LD<sub>50</sub>:</b> >2 g/kg (Rabbits) practically non-toxic.	5mg/m <sup>3</sup> (Respirable Dust)
<b>Inhalation LC<sub>50</sub>:</b> >5 mg/l (Rats) practically non-toxic.*	
<b>Eye Irritation:</b> (Rabbits) non-irritating	
<b>Skin Sensitization:</b> (Guinea Pigs) non-sensitizing	<b>PEL:</b> 15 mg/m <sup>3</sup> (Total Dust)
<b>Skin Irritation:</b> (Rabbits) non-irritating	5mg/m <sup>3</sup> (Respirable Dust)
<b>Human Patch:</b> Non-irritating, non-sensitizing	
<b>Mutagenicity:</b> No mutagenicity detected in Ames and Micronucleus Assays.	<b>AR200788</b>
<b>Aquatic LC<sub>50</sub>:</b> >500 mg/l (Fathead Minnows) non-toxic	<b>1XEL:</b> 5 mg/m <sup>3</sup> (Total Dust)

**Additional Information:**The information noted above is based on the toxicity data for 6500 and 2830 Toners. \*Not tested to the highest dose or concentration.

<sup>1</sup>XEL - Xerox Exposure Limit

**Section IV - Physical Data**

Appearance/Odor: Red powder / faint odor

Boiling Point: N.A.

Solubility in Water: Negligible

Evaporation Rate: N.A.

Vapor Density (Air = 1): N.A.

Volatile N.A. % (Wgt.) N.A. % (Vol.)

Softening Range: 85°C to 100°C

Melting Point: N.A.

Specific Gravity (H<sub>2</sub>O = 1): 1

Vapor Pressure (mm Hg): N.A.

pH = N.A.

**Section V - Fire and Explosion Data**

Flash Point (Method Used): N.A.

Flammable LEL: N.A.

Limits UEL: N.A.

Extinguishing Media: Water, Foam, Dry chemical

Special Fire Fighting Procedures: Avoid inhalation of smoke.

Fire and Explosion Hazards: Toner is a combustible powder. When dispersed in air, it forms explosive mixtures.

**Section VI - Reactivity Data**

Stability:

Unstable

Stable

X

Hazardous

Polymerization:

May Occur

Will Not Occur

X

Hazardous Decomposition Products: Products of combustion are toxic. Avoid breathing smoke.

Incompatibility (Materials to Avoid): None

**Section VII - Special Protection Information**

Respiratory Protection: None required when used as intended in Xerox equipment.

Eye Protection: None required when used as intended in Xerox equipment.

Protective Gloves: None required when used as intended in Xerox equipment.

Other: For use other than in normal customer - operating procedures (such as in bulk toner processing facilities), goggles and respirators may be required. For more information, contact Xerox.

**Section VIII - Special Precautions**

Handling and Storage: None

Conditions to Avoid: None

**Section IX - Spill, Leak, and Disposal Procedures**

For Spills or Leakage: Loose toner can be removed using a vacuum cleaner. Residue can be removed with soap and cold water. After removal of loose toner, garments may be washed or dry-cleaned.

Waste Disposal Method: Do not incinerate. No special techniques beyond normal practice. Insure conformity with federal, state or local regulations.

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**Section X - Transportation Information**

DOT Proper Shipping Name: Not Regulated

Hazard Classification: N.A.

ID Number: N.A.

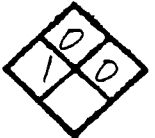
# Material Safety Data Sheet

QUELPYRE MASTIC

QUICK IDENTIFIER  
Common Name: (used on label and list)

May be used to comply with OSHA's Hazard Communication Standard,  
29CFR 1910.1200. Standard must be consulted for specific requirements.

703B



## SECTION 1 -

Manufacturer's Name: **Quelcor, Inc.**  
Address: **3765 Old Easton Road, Gate #1**  
City, State, and ZIP: **Doylestown, Penna. 18901**  
Emergency Telephone No.: **(215) 345-0100**  
Other Information Calls: **PPE E**  
Date Prepared: **6/3/86**  
UN: **1133**

## SECTION 2 - HAZARDOUS INGREDIENTS/IDENTITY

Hazardous Component(s) (chemical & common names)	OSHA PEL	ACGIH TLV	Other Exposure Limits	% (optional)	CAS NO.
Antimony Trioxide	--	.5	--	--	1309644

## SECTION 3 - PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point: **Same as water.** Specific Gravity (H<sub>2</sub>O=1): **> 1.0** Vapor Pressure (liquid phase) (mm Hg): **17.4 @ 20°C.**  
Vapor Density (Air = 1): **> 1 (heavier)**  
Solubility in Water (liquid phase): **Appreciable** Reactivity in Water: **None**  
Appearance and Odor (liquid phase): **White Mastic, mild latex odor.** Melting Point: **N/A**

## SECTION 4 - FIRE & EXPLOSION DATA

Flash Point: **N/A** Method Used: **C** Flammable Limits in Air % by Volume: **LEL Lower N/A UEL Upper N/A**  
Auto-Ignition Temperature: **N/A** Extinguisher Media: **Not applicable. Product is self-extinguishing.**  
Special Fire Fighting Procedures: **Not Applicable**

Unusual Fire and Explosion Hazards: **Not Applicable**

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**SECTION 5 - PHYSICAL HAZARDS (REACTIVITY DATA)**

Stability Unstable  Conditions Stable  to Avoid Not applicable

Incompatibility (Materials to Avoid) Strong Acids.

Hazardous Decomposition Products Carbon monoxide and/or carbon dioxide and nitrogen.

Hazardous Polymerization May Occur  Conditions Will Not Occur  to Avoid Not Applicable

**SECTION 6 - HEALTH HAZARDS**

1. Acute Direct eye contact may cause irritation. 2. Chronic Prolonged skin contact may cause irritation.

Signs and Symptoms of Exposure Treat symptomatically.

Medical Conditions Generally Aggravated by Exposure None known.

Chemical Listed as Carcinogen or Potential Carcinogen National Toxicology Program Yes  No  I.A.R.C. Monographs Yes  No  OSHA Yes  No

Emergency and First Aid Procedures See below.

ROUTES OF ENTRY 1. Inhalation Remove to fresh air. Treat symptomatically. 2. Eyes Immediately flush eyes with plenty of water for at least 15-minutes. Obtain physician if irritation persists. 3. Skin Wash affected areas with soap and water. Remove contaminated clothing and wash before reuse. 4. Ingestion Induce vomiting, obtain physician.

**SECTION 7 - SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES**

Precautions to be Taken in Handling and Storage Not applicable.

Other Precautions Not applicable.

Steps to be Taken in Case Material is Released or Spilled Uncontaminated material may be recovered and re-used. If contaminated, scoop into a receptacle for disposal.

Waste Disposal Methods (Consult federal, state, and local regulations) Allow material to dry. Dispose as solid waste in accordance with federal, state and local regulations.

**SECTION 8 - SPECIAL PROTECTION INFORMATION/CONTROL MEASURES**

Respiratory Protection (Specify Type) Dust mask recommended with adequate ventilation if material is spray applied. Use MSHA/NIOSH-type respirator in poorly ventilated areas.

Ventilation Required Local Exhaust Use if needed to control vapor. Mechanical Exhaust Expected to be satisfactory. Special Other Ventilate enclosed spaces.

Protective Gloves Impervious Eye Protection Safety glasses recommended.

Other Protective Clothing or Equipment As necessary

Work/Hygenic Practices Wash hands before eating, drinking or smoking.

IMPORTANT Do not leave any blank spaces. If required information is unavailable, unknown, or does not apply, so indicate.

MONSANTO PRODUCT NAME

**ROUNDUP® HERBICIDE**

MONSANTO COMPANY  
800 N. LINDBERGH BLVD.  
ST. LOUIS, MO 63167

**Emergency Phone No.**  
**(Call Collect)**  
**314-694-4000**

**PRODUCT IDENTIFICATION**

<b>Synonyms:</b>	None.	
<b>Chemical Name:</b>	Not Applicable, Formulated Product	
<b>Active Ingredient:</b>	*Isopropylamine salt of glyphosate.....	41.0%
<b>Inert Ingredients:</b>	.....	59.0%
		<u>100.0%</u>

\*Contains 480 grams per liter or 4 pounds of the active ingredient isopropylamine salt of N-(phosphonomethyl) glycine per U.S. gallon. Equivalent to 356 grams per liter or 3 pounds per U.S. gallon of the acid, glyphosate.

**CAS Reg. No.:** Not Applicable, Formulated Product

**CAS Reg. No. Active Ingredient:** 38641-94-0

**EPA Reg. No.:** 524-308

**DOT Proper Shipping Name:** Not Applicable

**DOT Hazard Class/ I.D. No.:** Not Applicable

**DOT Label:** Not Applicable

**Reportable Quantity (RQ) Under Clean Water Act:** Not Applicable

**U.S. Surface Freight Classification:** Weed Killing Compound, N.O.I.B.N.

The substance listed below is identified as a hazardous chemical under the criteria of the OSHA Hazard Communication Standard (29 CFR 1910.1200):

Surfactant, about 15%. The specific chemical identity is withheld because it is trade secret information of Monsanto Company.

**WARNING STATEMENTS**

Keep out of reach of children.  
WARNING!  
CAUSES EYE IRRITATION  
HARMFUL IF SWALLOWED  
MAY CAUSE SKIN IRRITATION  
NOT FOR REFORMULATION OR REPACKAGING

AR200792

## PRECAUTIONARY MEASURES

Do not get in eyes, on skin or on clothing.  
 Wash thoroughly after handling.  
 Avoid direct applications to any body of water. Do not contaminate water by disposal of waste or cleaning of equipment.

## EMERGENCY AND FIRST AID PROCEDURES

**FIRST AID: IF IN EYES**, immediately flush with plenty of water for at least 15 minutes. Call a physician.

**IF ON SKIN**, immediately flush with plenty of water. Remove contaminated clothing. Wash clothing before reuse.

**IF SWALLOWED**, this product will cause gastrointestinal tract irritation. Immediately dilute by swallowing water or milk. Call a physician.

## OCCUPATIONAL CONTROL PROCEDURES

**Eye Protection:** Wear chemical splash goggles during mixing/pouring operations or other activities in which eye contact with undiluted Roundup® herbicide is likely to occur.

**Skin Protection:** In cases in which prolonged or repeated skin contact with Roundup herbicide may occur, long-sleeved shirt, long pants, and chemical protective (e.g. rubber) gloves are recommended. Wash hands and contaminated skin after handling. Clothing soaked with Roundup solution should be promptly removed and laundered before reuse.

**Respiratory Protection:** Respiratory protection should not be required for normal use and handling. During periods of abnormal exposure to heavy spray or mist, use of NIOSH/MSHA approved equipment for pesticide vapor/mist is recommended. The respirator use limitations specified by NIOSH/MSHA or the manufacturer must be observed.

**Ventilation:** No special precautions are recommended.

**Airborne Exposure Limits:**

Product: Roundup Herbicide - 100% by wt.

OSHA PEL: None established  
 ACGIH TLV: None established

Surfactant ingredient: Approx. 15% by wt.

OSHA PEL: None established  
 ACGIH TLV: None established

## FIRE PROTECTION INFORMATION

**Flash Point:** >200°F. **Method:** Tag Closed Cup

**Extinguishing Media:** Water spray, foam, dry chemical or CO<sub>2</sub> or any Class B extinguishing agent.

**Special Firefighting Procedures:** Firefighters and others who may be exposed to vapors or products of combustion should wear a self-contained breathing apparatus and full protective clothing. Equipment should be thoroughly cleaned after use.

**Unusual Fire and Explosion Hazards:** None.

MATERIAL SAFETY DATA Roundup® Herbicide

RR 200793

## REACTIVITY DATA

- Stability:** Stable for at least 5 years under normal conditions of warehouse storage. Heated facilities are not required.
- Incompatibility:** This product and spray solutions of this product should be mixed, stored and applied only in stainless steel, aluminum, fiberglass, plastic and plastic lined containers.
- DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.
- Hazardous Decomposition Products:** None.
- Hazardous Polymerization:** Does not occur. This product can react with caustic (basic) materials to liberate heat. This is not a polymerization but rather a chemical neutralization in an acid-base reaction.

## HEALTH EFFECTS SUMMARY

The following information presents both human experience and the results of scientific experiments used by qualified experts to assess the effects of Roundup herbicide on the health of exposed individuals and to support the Precautionary Statements and Occupational Control Procedures recommended in this document. To avoid misunderstanding, the data provided in this section should be interpreted by individuals trained in evaluation of this type of information.

### Human Experience

Dermal contact and inhalation are expected to be the primary routes of occupational exposure to Roundup herbicide. Direct contact with this material may cause temporary eye irritation and conjunctivitis. Prolonged contact with Roundup herbicide may cause dermal irritation. Ingestion of Roundup herbicide has been reported to produce gastrointestinal discomfort, nausea, vomiting and diarrhea.

### Toxicological Data

Data from Monsanto studies indicate the following:

Oral LD <sub>50</sub> (Rat):	5,400 mg/kg, Practically Nontoxic
Dermal LD <sub>50</sub> (Rabbit):	>5,000 mg/kg, Practically Nontoxic
Eye Irritation (Rabbit, 24-hr):	(FHSA) Score = 4.1 on a scale of 110.0, Slightly Irritating
Skin Irritation (Rabbit, 24-hr):	(FHSA) Score = 4.3 on a scale of 8.0, Moderately Irritating
DOT Skin Irritation (Rabbit, 4-hr):	Not Corrosive
Inhalation LC <sub>50</sub> (Rat, 4-hr):	3.18 mg/l (analytical concentration), Slightly Toxic

Patch testing of 50 human volunteers with Roundup herbicide at use concentration and 5X use concentration produced no positive reactions following initial application, any of 15 repeated applications in the induction phase, or on subsequent challenge 2 weeks later. Roundup herbicide is not considered a primary irritant or a sensitizing agent.

Patch testing of guinea pigs with Roundup herbicide produced essentially no irritation following initial application; mild to moderate erythema (redness), edema (swelling) and/or mild necrosis (tissue damage) were observed in some animals during subsequent repeated exposures in the induction phase. On challenge, no dermal response was observed in any of the animals. Roundup herbicide is not considered a dermal sensitizing agent in guinea pigs.

(Health Effects Summary Continued On Next Page)



**HEALTH EFFECTS SUMMARY (Continued)**

Single male and female dogs were orally administered Roundup herbicide or a 2 percent aqueous solution of Roundup herbicide at dosages ranging from 0.3125 to 5.0 ml/kg. No mortality and no inhibition of plasma acetylcholinesterase activity were reported. The most common effects observed were vomiting and diarrhea, which occurred shortly after dosing.

A series of 21-day dermal toxicity studies have been conducted in which Roundup herbicide was applied to the skin of male rabbits 6 hours per day, 5 days per week at various concentrations. At 5 times the intended use concentration, severe dermal irritation and systemic toxicity (mortality, reduced food consumption, body weight loss, and testicular effects) were observed. Rabbits treated with 3 times the intended use concentration and below, or only with the active ingredient glyphosate, exhibited only slight to moderate local irritation and had no signs of systemic effects. When the surfactant in Roundup formulation was tested, marked irritation and systemic effects were observed which were similar to those seen with the higher concentration of Roundup. Effects observed in these studies are considered to be a secondary response to the stress of severe dermal irritation, to which rabbits are particularly sensitive, rather than the result of direct systemic toxicity.

Rats were exposed by inhalation to aerosol concentrations of 0.05, 0.16 and 0.36 mg of a 33.3% Roundup solution per liter air 6 hours/day, 5 days/week for a total of 22 exposures over a 4 week period. Minor nasal irritation was observed in female animals. No adverse hematologic, biochemical or systemic histopathologic effects were noted. The systemic no-effect level was considered to be 0.36 mg of a 33.3% Roundup solution per liter of air.

Following a 24-hr topical application of Roundup herbicide to the abdomen of rhesus monkeys, approximately 1.8 percent of the administered dose of the active ingredient (glyphosate) was systemically absorbed. Excretion in the urine was the major route of elimination following systemic absorption.

**Components**

Data from Monsanto studies and from the scientific literature on the components of Roundup herbicide is discussed below:

**Isopropylamine Salt of Glyphosate (MON 0139)**

The isopropylamine salt of glyphosate (MON 0139) has been tested in acute and subchronic toxicity studies. For additional toxicity information on this material, please refer to the MON 0139 Material Safety Data Sheet.

**Surfactant**

The surfactant properties of this material are considered to contribute to the eye and skin irritation potential of Roundup herbicide.

**PHYSICAL DATA**

<b>Appearance:</b>	Clear, viscous amber-colored solution.
<b>Odor:</b>	Practically odorless to slight amine-like odor.
<b>pH:</b>	4.4 - 4.9
<b>Specific Gravity (Water = 1):</b>	1.17

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MATERIAL SAFETY DATA Roundup<sup>®</sup> Herbicide



**ADDITIONAL COMMENTS (Continued)**

96-hr LC <sub>50</sub> Bluegill sunfish (Flow-Through):	5.8 mg/l, Moderately Toxic
96-hr LC <sub>50</sub> Rainbow trout (Static):	22 mg/l, Slightly Toxic
96-hr LC <sub>50</sub> Rainbow trout (Flow-Through):	8.2 mg/l, Moderately Toxic
96-hr LC <sub>50</sub> Channel catfish:	16 mg/l, Slightly Toxic
96-hr LC <sub>50</sub> Fathead Minnow:	9.4 mg/l, Moderately Toxic
96-hr LC <sub>50</sub> Crayfish:	>1,000 ppm, Practically Nontoxic

Carp contained in a static pond were unaffected at any time during a 90-day observation period following exposure by aerial application of Roundup herbicide at the normal use concentration. Tissue residue analyses indicated that glyphosate, the active ingredient in Roundup herbicide, will not bioaccumulate.

Immersion of chicken eggs at four different embryo ages (0, 6, 12 and 18 days) for about five seconds in 1 or 5% vol/vol Roundup in water solutions was reported to have no adverse effects on the hatchability or time to hatch of the eggs.

**DATE:** November, 1985

**SUPERSEDES:** March, 1982

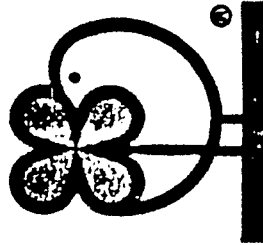
**MSDS NO.:** M00007588

FOR ADDITIONAL NON-EMERGENCY INFORMATION, CALL: 314-694-4000

MATERIAL SAFETY DATA Roundup® Herbicide

Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, Monsanto Company makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Monsanto Company be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.

# SAFER AGRO-CHEM'S INSECTICIDAL SOAP CONCENTRATE



**FRUIT AND NUT TREES** — Mix 6 tablespoons per gal. Spray when insects first appear or to prevent damage. Apply to achieve thorough coverage of branches and foliage. Repeat at weekly intervals or as needed. Avoid spraying when blossoms present. Use up to day of harvest.

**Apples, Pears** to control aphids, woolly aphids, scale crawlers, mites, pear psylla and pear slug.

**Citrus** (Lemons, Oranges, Grapefruit) to control aphids, cottony cushion scale, red scale, citrus thrips and mites.

**Almonds, Filberts, Walnuts** to control aphids, scale crawlers and mites.

**Apricots, Peaches, Nectarines** to control aphids, mites, apricot mealybug.

**Grapes** to control aphids and leafhoppers.

**INDOOR PLANTS** — For aphids and mealybugs spray again after two days or when insects return. For mites spray once a week for 2 to 3 weeks. For Blossom thrips on African violets spray to contact thrips on the blooms; root mealybug and springtail infestations can be reduced using a soil drench of one teaspoon of concentrate in a quart of warm water once a month. Do not use on Crown of Thorns; test on other euphorbias prior to full-scale application. Increase dilution for use on delicate ferns.

**FLOWERS AND BEDDING PLANTS** — Including foliage plants, roses and succulents. Apply as recommended under vegetables. For earwig control use 2 tablespoons per gallon and spray directly on insects after disturbing their hiding place. Do not use on nasturtiums, sweetpeas or violets.

**ORNAMENTAL TREES AND SHRUBS** — Apply to control crawler stage of adelgids, psyllids and scales or when infestation warrants. Apply as recommended under tree fruits and repeat application as needed. For tent caterpillars use 4 fl. oz. (8 tablespoons) per gallon and spray directly on young larvae when congregated on outside of tent. Use one part concentrate to two parts water to prevent hatching of gypsy moth egg masses; do not use this concentration on anything other than egg masses. Do not use on foliage of horse chestnut, mountain ash or Japanese maple.

**GREENHOUSES** — For whitefly use 1½ fl. oz. (3 tablespoons) concentrate per gallon. May be used on foliage plants, flowers, fruits and vegetables. Apply according to above recommendations according to crop type. Before spraying large planting apply to a few plants and observe for phytotoxicity for 10 days. Do not use on newly rooted cuttings.

**SAFER AGRO-CHEM INC.** nor the sellers accept liability resulting from misuse.

**Hazards to humans and domestic animals.**  
**CAUTION:** Harmful if swallowed. Avoid contamination of feed and food stuffs. Environmental hazards: Keep out of lakes, streams or ponds.

**DISPOSAL:** Do not reuse empty container. Rinse clean with water and dispose of in trash collection.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Always use freshly mixed solution.

Use soft water whenever possible.

Do not use on new transplants, newly rooted cuttings or when plants stressed by drought.

For most insects mix one part concentrate with 40 parts water or 3 fl. oz. (6 tablespoons) per gallon. Be sure that spray penetrates dense foliage and covers all infested surfaces thoroughly.

**VEGETABLES** — Mix 6 tablespoons per gal. of water. Apply when insects first appear or when damage occurs. Spray to wet all infested plant surfaces. One gal. of spray covers approximately 250 sq. ft. of growing area (150 to 200 gal. per acre.) For aphids spray again after 2 days or when insects return. For spider mites and whitefly be sure to spray underside of leaves; repeat at weekly interval or as necessary.

**Beans, Peas** to control aphids, leafhoppers, grasshoppers and spider mites. Use up to day of harvest.

**Cole crops** (Cabbage, Broccoli, Brussel Sprouts etc.) to control aphids, leafhoppers, and harlequin bug. Use up to day of harvest.

**Cucurbits** (Cucumber, Squash, Pumpkin, Melons) to control aphids, leafhoppers, spider mites, squash bug and whitefly. Use up to day of harvest.

**Tomatoes, Peppers, Egg Plant** to control aphids, spider mites, whitefly. Use up to day of harvest.

**CONTROLS**

Adelgids	Scales
Aphids	Spittlebugs
Cricket	Springtails
Earwigs	Tent Caterpillars
Fruitfly adults	Thrips
Fungus Gnats	Whitefly
Grasshoppers	Woolly Aphids
	Sawflies

**ON FOLIAGE PLANTS, FLOWERS, SHRUBS, TREES, VEGETABLES, FRUITS AND NUTS**

**IN AND AROUND HOMES**

**GREENHOUSES AND NURSERIES**

**ACTIVE INGREDIENTS BY WEIGHT**

Potassium salts of fatty acids	50.5%
<b>INERT INGREDIENTS</b>	49.5%
<b>TOTAL</b>	100.0%

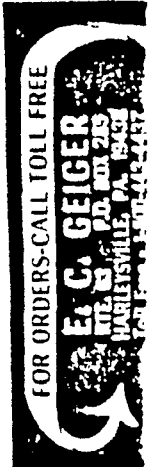
Keep Out of Reach of Children  
**CAUTION**

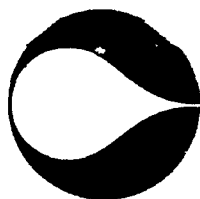
See side panel for additional cautions  
**NET CONTENTS 32 FL. OZS. U.S.**



EPA Reg. No. 42697-1.  
EPA Est. No. 42697-CA-01

Mfg for Safer Agro-Chem Inc.,  
13910 Lyons Valley Rd., Jamul, Ca.





**CARGILL SALT**  
**LESLIE SALT CO.**  
A CARGILL COMPANY

**PRODUCT SAFETY DATA SHEET**

**A. GENERAL INFORMATION**

TRADE NAME (COMMON NAME OR SYNONYM) Salt                      Cargill Super Soft Pellets		C.A.S. NO. 7647-14-5	
CHEMICAL NAME Sodium Chloride	FORMULA NaCl	MOLECULAR WEIGHT 58.4428	
ADDRESS Cargill Salt Division                      Leslie Salt Co. P.O. Box 5621                                  P.O. Box 364 Minneapolis, MN 55440                      Newark, CA 94560			
CONTACT National Technical Director	PHONE NUMBER (612) 475-6581	DATE ISSUED 8/1/85	DATE REVISED Same

**B. FIRST AID MEASURES**

<p><u>Skin:</u> Wash with water.  <u>Eyes:</u> Irrigate with plenty of water.</p>	EMERGENCY PHONE NUMBER (612) 476-1127
---	--

**C. HAZARDS INFORMATION      HEALTH      (Reference (a).)**

<p><b>INHALATION</b>          Inhalation of product may cause mild irritation of nose and throat.</p>	
<p><b>INGESTION</b>          Ingestion of large amounts (greater than 0.1 pound) may cause gastro-intestinal upset.</p>	
<p><b>SKIN</b>          Dust may cause mild irritation.</p>	
<p><b>EYES</b>          Dust may cause irritation.</p>	
<p><b>PERMISSIBLE CONCENTRATION</b>          AIR                                  None established.</p>	<p><b>BIOLOGICAL</b>          No TLV established.</p>
<p><b>UNUSUAL CHRONIC TOXICITY</b>          None.</p>	

AR200799

C. HAZARDS (Cont.) FIRE AND EXPLOSION

FLASH POINT Not flammable. <input type="checkbox"/> OPEN CUP <input type="checkbox"/> CLOSED CUP	°C	AUTOIGNITION TEMPERATURE NA	°C	FLAMMABLE LIMITS IN AIR (% BY VOLUME) NA
--	----	-----------------------------------	----	--

D. PRECAUTIONS/PROCEDURES

FIRE EXTINGUISHING AGENTS RECOMMENDED NA
FIRE EXTINGUISHING AGENTS TO AVOID NA
SPECIAL FIRE FIGHTING PRECAUTIONS NA
VENTILATION Local exhaust if dusty conditions prevail.
NORMAL HANDLING Avoid eye contact or prolonged skin contact.
STORAGE Wet or damp conditions can cause caking and corrosion of metal contact surfaces.
SPILL OR LEAK Shovel up dry material into an empty container. Flush residue with water down local sewer.
SPECIAL: PRECAUTIONS/PROCEDURES/LABEL INSTRUCTIONS Store in cool, dry area. No special cautions or labeling are required.

E. PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION When required, use a respirator approved by NIOSH for product dusts.
EYES AND FACE In extremely dusty areas, chemical safety goggles should be used.
HANDS, ARMS, AND BODY Wear long-sleeved shirts and trousers for routine product handling. Gloves are optional.
OTHER CLOTHING AND EQUIPMENT NA

AR200800

**F. PHYSICAL DATA**

MATERIAL IS (AT NORMAL CONDITIONS): <input type="checkbox"/> LIQUID <input checked="" type="checkbox"/> SOLID <input type="checkbox"/> GAS <input type="checkbox"/> _____		APPEARANCE AND ODOR White crystalline solid. Slight saline odor.	
BOILING POINT    1465°C MELTING POINT    800°C	SPECIFIC GRAVITY (H <sub>2</sub> O = 1) 2.16	VAPOR DENSITY (AIR = 1) NA	
SOLUBILITY IN WATER (% BY WEIGHT) 26.395 Max. at 60°F	pH (20% SOLUTION) 6.5 - 9.5	VAPOR PRESSURE (mm Hg at 20°C) 2.4mm at 746.9°C	

**G. REACTIVITY DATA**

STABILITY <input checked="" type="checkbox"/> STABLE <input type="checkbox"/> UNSTABLE	CONDITIONS TO AVOID Wet/damp conditions can cause caking and corrosion.
INCOMPATIBILITY (MATERIALS TO AVOID) None provided the product is dry.	
HAZARDOUS DECOMPOSITION PRODUCTS None.	
HAZARDOUS POLYMERIZATION <input type="checkbox"/> MAY OCCUR <input checked="" type="checkbox"/> WILL NOT OCCUR	CONDITIONS TO AVOID

**H. HAZARDOUS INGREDIENTS (Mixtures Only)**

MATERIAL OR COMPONENT /C.A.S. NO.	WEIGHT %	HAZARD DATA (SEE SECTION J)

AR200801

I. ENVIRONMENTAL

DEGRADABILITY/AQUATIC TOXICITY	
Product is inorganic and may persist in the environment.	
EPA HAZARDOUS SUBSTANCE? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO     IF SO, REPORTABLE QUANTITY: _____ #	40 CFR 116-117
WASTE DISPOSAL METHODS (DISPOSER MUST COMPLY WITH FEDERAL, STATE AND LOCAL DISPOSAL OR DISCHARGE LAWS) Flush to sewer if permitted by applicable disposal regulations.	
RCRA STATUS OF UNUSED MATERIAL: Not a "hazardous waste".	40 CFR 261

J. REFERENCES

PERMISSIBLE CONCENTRATION REFERENCES		
REGULATORY STANDARDS	D.O.T. CLASSIFICATION:     NA	49 CFR
FDA regulations apply to food use and USP/NF grades (21 CFR). USDA regulations apply to use in meat and poultry products.		
GENERAL (a) Recommendations of the Salt Institute.		

K. ADDITIONAL INFORMATION

This product is not for food or drug use unless material is labeled "food grade," "USP grade," or "NF grade," as applicable.
--

This product safety data sheet is offered solely for your information, consideration and investigation.

Cargill Salt Division/Leslie Salt Co. provides no warranties, either express or implied, and assumes no responsibility for the accuracy or completeness of the data contained herein.





# MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing,  
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

PPE B  
UN 1790

SECTION I	
MANUFACTURER'S NAME SEHL INTERNATIONAL, INC.	EMERGENCY TELEPHONE NO. 415-341-3799
ADDRESS (Number, Street, City, State, and ZIP Code) P.O. Box 8055, Foster City, CA 94404	
CHEMICAL NAME AND SYNONYMS buffered/inhibited acid cleaner	TRADE NAME AND SYNONYMS SEHL SAFE
CHEMICAL FAMILY	FORMULA

SECTION II - HAZARDOUS INGREDIENTS					
PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)
Hydrogen Fluoride				4.2	
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <b>RECEIVED</b>                      OCT 17 1985                      C. MURAWCZYK                 </div>					

SECTION III - PHYSICAL DATA			
BOILING POINT (°F.)	212	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	1.043
VAPOR PRESSURE (mm Hg.)	NIL	PERCENT VOLATILE BY VOLUME (%)	99%
VAPOR DENSITY (AIR=1)	1.03	EVAPORATION RATE (_____ =1)	SAME AS WATER
SOLUBILITY IN WATER	100%		
APPEARANCE AND ODOR	Clear (coloring dyes added) Extremely light color		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA			
FLASH POINT (Method used)	NONE	FLAMMABLE LIMITS	NONE
EXTINGUISHING MEDIA	NONE REQUIRED		
SPECIAL FIRE FIGHTING PROCEDURES	NONE REQUIRED		
UNUSUAL FIRE AND EXPLOSION HAZARDS	NONE		

**SECTION V - HEALTH HAZARD DATA**

THRESHOLD LIMIT VALUE 32 ppm

EFFECTS OF OVEREXPOSURE  
May cause minor irritation on skin. Immediately wash skin with soapy water and clean under finger nails.

EMERGENCY AND FIRST AID PROCEDURES  
EYES: Flush thoroughly with large quantities of cold water.

SKIN: Wash skin with soap & water & rinse thoroughly.

INTERNAL: Drink large quantities of water, follow with egg whites or mineral oil. Do not induce vomiting. Call physician immediately

**SECTION VI - REACTIVITY DATA**

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	Do not expose to oxidation agents.

INCOMPATIBILITY (Materials to avoid)  
Will attack aluminum and aluminum alloys if allowed contact for long period of time.

HAZARDOUS DECOMPOSITION PRODUCTS No

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	NONE

**SECTION VII - SPILL OR LEAK PROCEDURES**

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Rinse or flood area thoroughly with water. E.P.A. WASTE # D002

WASTE DISPOSAL METHOD

**SECTION VIII - SPECIAL PROTECTION INFORMATION**

RESPIRATORY PROTECTION (Specify type)  
None required, but recommended in confined, non-ventilated areas.

VENTILATION	LOCAL EXHAUST Normal ventilation sufficient	SPECIAL NONE
	MECHANICAL (General) Enclosed area may require fan	OTHER NONE

PROTECTIVE GLOVES Plastic gloves are suggested EYE PROTECTION Splash-proof goggles recommended.

OTHER PROTECTIVE EQUIPMENT NONE

**SECTION IX - SPECIAL PRECAUTIONS**

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING NONE

D.O.T. Spill Cat. - unlisted U.N. # 1790

OTHER PRECAUTIONS POISON IF SWALLOWED.

AR200804

Keep away from children. For industrial use only.

12/02/85

M A T E R I A L   S A F E T Y   D A T A   S H E E T

UNION CARBIDE AGRICULTURAL PRODUCTS COMPANY, INC.  
P.O. Box 12014, T.W. Alexander Drive, Research Triangle Park, NC 27709  
24-HOUR EMERGENCY TELEPHONE 1-800-UCC-HELP

Effective Date : 5/20/86  
PRODUCT CODES: P80443 , P21479 , P21457  
EPA Registration Number: 264-314

Date Printed: MAY 22, 1986

Page: 1

PRODUCT NAME: "SEVIN" BRAND 50W CARBARYL INSECTICIDE

I. IDENTIFICATION

CHEMICAL NAME: 1-Naphthyl N-methylcarbamate

FORMULA: C<sub>12</sub>H<sub>11</sub>NO<sub>2</sub>

MOLECULAR WEIGHT: 201.20

SYNONYMS: Carbaryl

CAS # & NAME:

63-25-2

1-Naphthalenol methylcarbamate

IMPORTANT HEALTH EFFECT INFORMATION

WARNING!

MAY BE FATAL IF SWALLOWED.

HARMFUL IF INHALED OR ABSORBED THROUGH THE SKIN.

See Section IV for complete Health Hazard Data.

II. HAZARDOUS INGREDIENTS

MATERIAL-----WEIGHT %-----

(1) Carbaryl, (1-Naphthyl N-methylcarbamate) 50  
(2) Other ingredients (Trade Secret)

ALLOWABLE EXPOSURE LIMITS:

Carbaryl: 5mg/cubic meter of air TLV-TWA (ACGIH) and PEL-TWA (OSHA)

Carrier: Use OSHA PEL and ACGIH TLV for nuisance dust containing less than 1% quartz.

III. PHYSICAL DATA

SPECIFIC GRAVITY / BULK DENSITY: 20 lbs/cubic foot

BOILING POINT, 760 mm Hg, Degrees C (F): Not applicable

(Continued on Page 2 )

AR200805

M A T E R I A L   S A F E T Y   D A T A   S H E E T

UNION CARBIDE AGRICULTURAL PRODUCTS COMPANY, INC.  
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Effective Date: 5/20/86

Date Printed: MAY 22, 1986  
Page 2

PRODUCT NAME: "SEVIN" BRAND 50W CARBARYL INSECTICIDE

-----  
III. PHYSICAL DATA (continued)  
-----

MELTING POINT, Degrees C (F): Not known  
FREEZING POINT, Degrees C (F): Not applicable  
VAPOR PRESSURE, . Degrees C: Not applicable  
VAPOR DENSITY (air=1): Not applicable  
pH: Not known  
SOLUBILITY IN WATER, %/wt @30 Degrees C: Dispersible  
APPEARANCE AND ODOR: White to light tan powder; mild phenolic odor  
-----

-----  
IV. HEALTH HAZARD DATA  
-----

GENERAL INFORMATION

Illness may occur rapidly after overexposure to this product. The principal hazard of this product is reversible cholinesterase inhibition. Symptoms are dose dependent, rapid in onset and reversible in time. The main symptoms are listed below.

TOXICOLOGY DATA:

Oral LD50 (rats) - 406                      mg/kg body weight  
Dermal LD50 (rabbits) - No information available  
Inhalation LC50 (rats - 4 Hour Exposure) - 3.21                      mg/L  
Skin Effects: No information available  
Eye Effects : No information available

EFFECTS OF SINGLE OVEREXPOSURE:

Swallowing:

May be fatal if swallowed. (See TOXICOLOGY DATA)  
May lead to rapid onset of nausea, vomiting, abdominal pain, diarrhea, pinpoint pupils, blurred vision, profuse sweating, salivation, tremor, muscle twitching, and temporary paralysis. In severe poisoning respiratory depression and convulsions may occur.

Skin Absorption:

Harmful if absorbed through skin.  
No specific toxicology data is available on this product, but studies on the technical product would indicate that skin absorption may lead to symptoms as described above.

(Continued on Page 3 )

AR200806

# M A T E R I A L   S A F E T Y   D A T A   S H E E T

UNION CARBIDE AGRICULTURAL PRODUCTS COMPANY, INC.  
P.O. Box 12014, T.W. Alexander Drive, Research Triangle Park, NC 27709  
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Effective Date: 5/20/86

Date Printed: MAY 22, 1986  
Page 3

PRODUCT NAME: "SEVIN" BRAND 50W CARBARYL INSECTICIDE

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## IV. HEALTH HAZARD DATA (continued)

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### Inhalation:

Harmful if inhaled.

Inhalation of dusts or sprays (mists) may lead to symptoms as described above.

May be irritating to the respiratory tract.

### Skin Irritation:

No significant adverse effects are anticipated based on available information.

### Eye Contact:

Causes eye irritation, seen as tearing and redness.

No specific toxicology data is available on this product, but studies on the technical product would indicate that dusts or sprays (mists) may cause eye irritation, seen as tearing and redness.

### EFFECTS OF REPEATED OVEREXPOSURE:

This product causes reversible cholinesterase inhibition.

Repeated overexposure may cause more severe cholinesterase inhibition with the signs and symptoms described for single overexposures being more pronounced.

### OTHER EFFECTS OF OVEREXPOSURE:

See Notes To Physician.

### EXISTING MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Overexposure may aggravate existing chronic cardiovascular or respiratory disease leading to respiratory difficulty, pulmonary edema and cyanosis.

### EMERGENCY AND FIRST AID PROCEDURES:

**CAUTION:** Persons attending the victim should avoid direct contact with heavily contaminated clothing and vomitus. Wear impervious gloves while decontaminating skin and hair.

Remove the patient from immediate source of exposure and assure that the individual is breathing. Use artificial respiration if necessary, to assure continued breathing. GET MEDICAL ATTENTION.

(Continued on Page 4 )

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M A T E R I A L   S A F E T Y   D A T A   S H E E T

UNION CARBIDE AGRICULTURAL PRODUCTS COMPANY, INC.  
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Effective Date: 5/20/86

Date Printed: MAY 22, 1986  
Page 4

PRODUCT NAME: "SEVIN" BRAND 50W CARBARYL INSECTICIDE

IV. HEALTH HAZARD DATA (continued)

Swallowing:

If patient is conscious and alert, give 2-3 glasses of water or milk to drink. If available, give one tablespoon of Syrup of Ipecac to induce vomiting. Alternatively, induce vomiting by touching back of throat with finger. Do not repeat the Syrup of Ipecac. Do not make an unconscious person vomit. GET MEDICAL ATTENTION.

Skin:

Immediately wash skin with plenty of soap and water, if available, while removing contaminated clothing and shoes. Wash clothing separately before reuse.

Inhalation:

Remove victim to fresh air. If not breathing, give artificial respiration. Administer oxygen if necessary. GET MEDICAL ATTENTION.

Eyes:

Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. GET MEDICAL ATTENTION.

NOTES TO PHYSICIAN:

All treatments should be based on observed signs and symptoms of distress in the patient. Overexposure to materials other than this product may have occurred.

This product contains a methyl carbamate insecticide, which is a cholinesterase inhibitor. Overexposure to this substance may cause toxic signs and symptoms due to stimulation of the cholinergic nervous system. These effects of overexposure are spontaneously and rapidly reversible.

Specific treatment consists of parenteral atropine sulfate. Caution should be maintained to prevent overatropinization. Mild cases may be given 1 to 2 mg. intramuscularly every 10 minutes until full atropinization has been achieved and repeated thereafter whenever symptoms reappear. Severe cases should be given 2 to 4 mg. intravenously every 10 minutes until fully atropinized, then intramuscularly every 30 to 60 minutes as needed to maintain the effect for at least 12 hours. Dosages for children should be appropriately reduced. Complete recovery from overexposure is to be expected within 24 hours.

Narcotics and other sedatives should not be used. Further, drugs like 2-PAM (pyridine-2-aldoxime methiodide) are NOT recommended. To aid in confirmation of a diagnosis, urine samples should be obtained within 24 hours of exposure and immediately frozen. Analyses will be arranged by Union Carbide Agricultural Products Company, Inc.

Carbaryl, when administered by various routes, at doses toxic to the

(Continued on Page 5 )

# M A T E R I A L   S A F E T Y   D A T A   S H E E T

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PRODUCT NAME: "SEVIN" BRAND 50W CARBARYL INSECTICIDE

## IV. HEALTH HAZARD DATA (continued)

maternal animals, has been shown to produce developmental toxicity in a number of species. Carbaryl produces no teratogenic effect in the absence of maternal toxicity. In addition, the balance of the evidence supports the conclusion that the active ingredient and its possible metabolites do not represent a quantifiable mutagenic risk to humans. Carcinogenicity studies in animals have been shown to be negative.

## V. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT Degrees C (F): 193 (380) (carbaryl) Cleveland Open Cup

EXPLOSIVE LIMITS IN AIR (ounces/cubic foot):

Lower: 0.02 (carbaryl)

Upper: Not known

AUTOIGNITION TEMPERATURE Degrees C (F): 625 (1157) (carbaryl)

EXTINGUISHING MEDIA: Use carbon dioxide or dry chemical for small fires.  
Use water spray or foam (alcohol, polymer, or ordinary) for large fires.

SPECIAL FIRE FIGHTING PROCEDURES: Provide for the protection of employees and residents:

- a) Evacuate residents who are downwind of fire.
- b) Prevent unauthorized entry to fire area.
- c) Persons who may have been exposed to contaminated smoke should be examined by a physician and treated appropriately.
- d) Dike area to prevent runoff and contamination of water sources.

Notify local authorities that firemen should:

- a) Wear protective clothing and use self-contained breathing apparatus.
- b) Be immediately relieved from duty, if exposed to contaminated smoke, and checked for symptoms of poisoning. These should not be mistaken for heat exhaustion or smoke inhalation. See Section IV, Health Hazard Data for symptoms of poisoning, first aid procedures, and notes to physician.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Thermal decomposition products may be hazardous. These may include oxides of nitrogen, carbon and sulfur, and minute quantities of methyl isocyanate.

Avoid dispersion of dust in air to reduce potential explosion hazard.

AR200809

(Continued on Page 6)

M A T E R I A L   S A F E T Y   D A T A   S H E E T

UNION CARBIDE AGRICULTURAL PRODUCTS COMPANY, INC.  
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Effective Date: 5/20/86

Date Printed: MAY 22, 1986  
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PRODUCT NAME: "SEVIN" BRAND 50W CARBARYL INSECTICIDE

V. FIRE AND EXPLOSION HAZARD DATA (continued)

Use electrical equipment suitable for atmospheres that may contain combustible dusts.

VI. REACTIVITY DATA

STABILITY:  
Stable

CONDITIONS TO AVOID:  
Extended storage at temperatures in excess of 100 Degrees F.

MATERIALS TO AVOID:  
Alkalis, strong acids.

HAZARDOUS DECOMPOSITION PRODUCTS:  
Oxides of nitrogen, carbon and sulfur, and minute quantities of methyl isocyanate may be produced upon thermal decomposition at high temperatures.

HAZARDOUS POLYMERIZATION:  
Will not occur.

VII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Sweep or shovel spills into waste container while minimizing dust generation. Wear appropriate personal protective equipment. Do not contaminate water source.

WASTE DISPOSAL METHOD: Dispose of in an approved landfill or incinerator following all applicable federal, state, and local regulations.

VIII. SPECIAL PROTECTION INFORMATION

PROTECTIVE EQUIPMENT SHOULD BE USED IN THE MANUFACTURE OR FORMULATION OF THE PRODUCT, INCLUDING THE FOLLOWING:

RESPIRATORY PROTECTION: Use NIOSH/MSHA approved respirator for pesticide dust when handling spills or leaks, or when airborne concentrations exceed allowable exposure limits.

AR200810

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M A T E R I A L   S A F E T Y   D A T A   S H E E T

UNION CARBIDE AGRICULTURAL PRODUCTS COMPANY, INC.  
P.O. Box 12014, T.W. Alexander Drive, Research Triangle Park, NC 27709  
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Effective Date: 5/20/86

Date Printed: MAY 22, 1986  
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PRODUCT NAME: "SEVIN" BRAND 50W CARBARYL INSECTICIDE

VIII. SPECIAL PROTECTION INFORMATION (continued)

VENTILATION: Mechanical (general) ventilation.

PROTECTIVE GLOVES: Impervious gloves, e.g. PVC or butyl.

EYE PROTECTION: Goggles, eye bath.

OTHER PROTECTIVE EQUIPMENT: Full-body protective clothing, safety shower.

IX. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

Store unused product in original container only, in cool, dry area out of reach of children and animals. Do not store in areas where temperatures frequently exceed 100 Degrees F. Do not contaminate water, food or feed by storage or disposal.

The opinions expressed herein are those of qualified experts within Union Carbide Agricultural Products Company, Inc. We believe that the information contained herein is current as of the date of this Material Safety Data Sheet. Because the use of this information and these opinions and the conditions of use of the Product are not within the control of Union Carbide Agricultural Products Company, Inc., it is the user's obligation to determine the conditions of safe use of the product.

"SEVIN" is a registered trademark of Union Carbide.

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(Last Page)



20  
pms  
Interconnection

NOTICE: JUDGEMENT BASED ON INDIRECT TEST DATA.

# AEROSOL MATERIAL SAFETY DATA SHEET

(ESSENTIALLY SIMILAR TO FORM OSHA-20)

EMERGENCY PHONE (305) 974-5440

**SILAZENE**

**CHEMICAL PACKAGING CORPORATION**  
P.O. BOX 9947, FT. LAUDERDALE, FL 33310

E95 XXXXXXXXXX Silicone **SPRAY7499**  
QUICK PRODUCT IDENTIFIER (IN PLANT COMMON NAME)

## I - IDENTIFICATION

SIGNATURE OF PERSON RESPONSIBLE FOR PREPARATION	<i>W. Smith</i>	DATE PREPARED	<i>11-25-85</i>	PACKAGE TYPE	Aerosol Container
FORMULA	Proprietary Mixture	TRADE NAME	Silicone		

## II - HAZARDOUS INGREDIENTS

PRINCIPLE HAZARDOUS COMPONENT(S) (CHEMICAL NAME(S))	CAS#	APPROX. % (wt)	TLV (ppm)
1,1,1-Trichloroethane	71-55-6		350
Poly (dimethyl) siloxane	63148-62-9		—
Isopropyl alcohol	67-63-0		400
THIS PRODUCT CONTAINS NO KNOWN OR SUSPECTED CARCINOGENS.			
The ingredients above are listed in descending order of concentration.			
PROPELLANT	propane/butane	74-98-6/75-28-5	1000

## III - PHYSICAL DATA

BOILING POINT (°F) OF CONCENTRATE	N.D.	SPECIFIC GRAVITY (H <sub>2</sub> O = 1) @ 75°F OF CONCENTRATE	1.297
VAPOR PRESSURE (psig) IN CAN @ 75°F	56	% VOLATILE BY VOLUME IN CAN	> 98
VAPOR DENSITY	N.D.	FLASH POINT OF CONCENTRATE	63° F Tag Open Cup
SOLUBILITY IN WATER OF CONCENTRATE	Negligible	APPEARANCE AND ODOR OF SPRAY	Clear water white liquid mild sweetish odor

## IV - FIRE & EXPLOSION HAZARD DATA

FLAMMABILITY as per CPSC FLAME EXTENSION TEST	spray flammable	FLAMMABLE LIMITS	Lower N/A	Upper N/A
EXTINGUISHING MEDIA	foam dry chemical CO <sub>2</sub>			
SPECIAL FIRE FIGHTING PROCEDURES	KEEP CONTAINERS COOL. USE EQUIPMENT OR SHIELDING REQUIRED TO PROTECT PERSONNEL AGAINST BURSTING, RUPTURING OR VENTING CONTAINERS.			
UNUSUAL FIRE & EXPLOSION HAZARDS	AT ELEVATED TEMPERATURES (ABOVE 120°F) CONTAINERS MAY VENT, RUPTURE OR BURST.			

RECEIVED  
APR 09 1987

## V - REACTIVITY DATA

CHEMICAL STABILITY	UNSTABLE	CONDITIONS TO AVOID	Do not expose to temp. above 120° F.
	STABLE		
INCOMPATIBILITY (Materials to avoid)	Strong alkalis, oxidizers, aluminum and other reactive metals.		
HAZARDOUS DECOMPOSITION PRODUCTS	Abnormally high temp. Possible trace amounts of phosgene		
HAZARDOUS POLYMERIZATION	MAY OCCUR	CONDITIONS TO AVOID	None
	WILL NOT OCCUR		

C. MURAWCZYK

AR200812

**AEROSOL PRODUCTS PRESENT A LIMITED HAZARD DURING STORAGE OR USE IF LABEL PRECAUTIONS ARE FOLLOWED. INTENTIONAL MIS-USE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS CAN BE HARMFUL, OR FATAL. PRESSURIZED CONTAINERS MUST NOT BE EXPOSED TO TEMPERATURES ABOVE 120°F AND SPRAY SHOULD NOT BE DIRECTED TOWARD FACE OR EYES, OPEN FLAME OR OTHER SOURCE OF IGNITION.**

VI— HEALTH HAZARD DATA	
OSHA PERMISSIBLE EXPOSURE LIMIT N.D.	THRESHOLD LIMIT VALUE See Section II
EFFECTS OF OVER EXPOSURE	
<b>INHALATION:</b> Excessive inhalation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headaches and possible unconsciousness.	
<b>SKIN CONTACT/ABSORPTION:</b> Prolonged or repeated contact can cause moderate irritation, defatting and dermatitis.	
<b>INGESTION:</b> Can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration of material into the lungs can cause chemical pneumonitis.	
<b>EYES:</b> Can cause severe irritation, redness, tearing and blurred vision.	
EMERGENCY AND FIRST AID PROCEDURES	
<b>EYES AND SKIN</b> Flush with water, lifting upper and lower lids. Get medical attention. Wash exposed area with soap and water.	
<b>INHALATION</b> Remove to fresh air. If breathing difficult, administer oxygen. If breathing has stopped give artificial respiration. Get medical attention.	
<b>INGESTION</b> Do not induce vomiting. Get medical attention. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis.	
VII — SPILL OR LEAK PROCEDURES	
<b>STEPS TO BE TAKEN IN CASE CONTAINER IS PUNCTURED AND MATERIAL IS RELEASED.</b> Clean up area by mopping or with absorbent materials and place in closed containers for disposal. Consult Federal, State or Local disposal authorities for approved disposal procedures.	
<b>WASTE DISPOSAL METHOD</b> <small>WHEN USED PROPERLY AEROSOL PRODUCTS DO NOT GENERATE HAZARDOUS WASTE. EMPTY DE-PRESSURIZED CONTAINERS CAN NOT BE REUSED AND SHOULD BE WRAPPED AND PUT IN TRASH COLLECTION. CANS WHICH ARE PRESSURIZED OR CONTAIN LIQUID MUST BE DISPOSED OF IN A PERMITTED WASTE MANAGEMENT FACILITY CONSULT FEDERAL, STATE AND LOCAL DISPOSAL AUTHORITIES FOR APPROVED PROCEDURES.</small>	
VII — SPECIAL PROTECTION INFORMATION	
<b>SPECIFIC PERSONAL PROTECTIVE EQUIPMENT</b> <b>RESPIRATORY</b> General ventilation adequate.	
<b>EYE</b> Chemical splash goggles in compliance with OSHA regulations.	
<b>SKIN</b> Wear resistant gloves such as: neoprene, nitrile rubber or polyvinyl chloride.	
<b>OTHER</b> Do not eat, drink or smoke in work area, wash hands before eating.	
<b>VENTILATION REQUIREMENTS</b> Provide sufficient mechanical (general) and/or local exhaust ventilation to maintain exposure below TLV (S).	
IX — SPECIAL PRECAUTIONS	
<b>PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING</b> Do not store at temperatures above 120 F.	
<b>SPECIAL PRECAUTIONARY STATEMENTS</b> PLEASE READ AND FOLLOW THE DIRECTIONS ON THE PRODUCT LABEL. THEY ARE YOUR BEST GUIDE TO USING THIS PRODUCT IN THE MOST EFFECTIVE WAY. AND GIVE THE NECESSARY SAFETY PRECAUTIONS TO PROTECT YOUR HEALTH. <div style="text-align: right; font-size: 1.2em; font-weight: bold;">AR200819</div>	

**NOTICE: WE BELIEVE THAT THE INFORMATION CONTAINED ON THIS MATERIAL SAFETY DATA SHEET IS ACCURATE. THE SUGGESTED PROCEDURES ARE BASED ON EXPERIENCE AS OF THE DATE OF PUBLICATION. THEY ARE NOT NECESSARILY ALL-INCLUSIVE NOR FULLY ADEQUATE IN EVERY CIRCUMSTANCE. ALSO, THE SUGGESTIONS SHOULD NOT BE CONFUSED WITH NOR FOLLOWED IN VIOLATION OF APPLICABLE LAWS, REGULATIONS, RULES OR INSURANCE REQUIREMENTS. NO WARRANTY, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE IS MADE.**

# MATERIAL SAFETY DATA SHEET

PRODUCT NAME <b>Electrical Quality Silicone (Aerosol)</b>	# MSDS002094
MANUFACTURED BY: <b>CRC CHEMICALS</b>	#2094 Phone (215) 674-4300
885 LOUIS DRIVE, WARMINSTER, PA. 18974	

1. INGREDIENTS	CAS #	ACGIH TLV	OSHA PEL	Other Limits	%
Dimethyl polysiloxane	63148-62-9	NA	NA		3
1,1,1 Trichloroethane	71-55-6	350	350		51
Hexane	64742-89-8	NA	500	100	42
*Carbon dioxide	124-38-9	5000			4
*Carbon dioxide functions as propellant for this product. Pressure of aerosol is 85 psia at 70°F.					



PPE B  
 IN 1950

## 2. PHYSICAL DATA (Propellant not included)

Specific Gravity 0.9268	Vapor Pressure NA	% Volatile 97
Boiling Point 152°F (Initial)	Evaporation Rate Rapid	
Freezing Point NA	Vapor Density Heavier than air	
Appearance and Odor Clear water white liquid - solvent odor		
Solubility Not soluble in water		

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## 3. FIRE AND EXPLOSION DATA

Flashpoint <20°F Method TCC	Flammable Limits NA
Extinguishing Media Foam, Carbon dioxide, Dry chemicals	LEL UEL
Unusual Hazards Aerosol cans may explode when heated above 130°F.	

## 4. REACTIVITY AND STABILITY

Stability Stable
Hazardous decomposition products Thermal (Carbon monoxide, hydrogen chloride, and possible phosphene)
Materials to avoid Strong oxidizers.

## 5. PROTECTION INFORMATION

Ventilation Required in a confined area to maintain vapor below TLV.	
Respiratory Self contained breathing apparatus	
Gloves Solvent resistant	Eye & Face Safety Goggles
Other Protective Equipment Not normally required for aerosol use.	

AR200814

11/15/85

**7. HEALTH HAZARD DATA**

Primary Routes of Entry Inhalation and Skin

Signs and Symptoms of Exposure

1. Acute Overexposure Inhalation - Headache, dizziness, nausea, anesthesia & unconsciousness. Eyes - may be irritating to eyes. Skin - may be irritating to skin.

2. Chronic Overexposure - Prolonged high levels of the n-hexane may damage nerve tissue - high levels of 1,1,1 trichloroethane may affect liver and kidneys.

Medical Conditions Generally Aggravated by Exposure

Chemical Listed as Carcinogen or Potential Carcinogen	National Toxicology Program	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	IARC Monographs	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	OSHA	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Emergency and First Aid Procedures (If symptoms persist, call a physician)

1. Inhalation Remove to fresh air - apply artificial respiration if needed.

2. Eyes Flush with large amounts of water.

3. Skin Wash with soap and water - Remove contaminated clothing.

4. Ingestion Do not induce vomiting.

**8. SPILL OR LEAK PROCEDURES**

Precautions to be taken in Handling and Storage Store in a cool dry area.

Steps to be taken in case Materials is released or spilled Remove sources of ignition, ventilate area. Absorb liquid and put in a vapor tight container.

Waste Disposal Partially used and unused aerosols are hazardous waste if discarded. Dispose in conformance with Federal, State & local regulations.

**8. SPECIAL PRECAUTIONS AND USE DIRECTIONS**

Aerosols may explode if exposed to temperatures over 130°F.

AR200815

PREPARED BY: A.B. Reed

ORIGINAL DATE OR DATE OF REVISION Nov. 1985

(Aerosol Services Industries)

U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

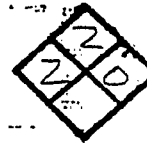
Form Approved  
OMB No. 44-R1387

# MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing,  
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

## SECTION I

MANUFACTURER'S NAME Aerosol Services Company, Inc.		EMERGENCY TELEPHONE NO. (213) 968-8531
ADDRESS (Number, Street, City, State, and ZIP Code) 425 S. Ninth Ave. City of Industry, CA 91746		
CHEMICAL NAME AND SYNONYMS N/A	TRADE NAME AND SYNONYMS Smoke Detector Tester	
CHEMICAL FAMILY N/A	FORMULA N/A	



PPE A  
UN 1993

## SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

### HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES

	%	TLV (Units)
Petroleum Hydrocarbon	10	400ppm
Chlorinated Hydrocarbon	15	500ppm
Ester	5	5mg/cum
Hydrocarbon Aerosol Propellants	70	1000ppm

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C. MURAWOZYK

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)		SPECIFIC GRAVITY (H <sub>2</sub> O=1)	98
VAPOR PRESSURE (mmHg) @70°F Can Pressure	50 psig	PERCENT VOLATILE BY VOLUME (%)	100
VAPOR DENSITY (AIR=1)	> 1	EVAPORATION RATE (_____ =1)	N/A
SOLUBILITY IN WATER	Insoluble		
APPEARANCE AND ODOR	Aerosol Air Spray		

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) N/A Aerosol Can	FLAMMABLE LIMITS Propellant	Lel 1.8% vol.	Uel 9.5% vol.
EXTINGUISHING MEDIA CO <sub>2</sub> , Dry Chemical, Foam	SPECIAL FIRE FIGHTING PROCEDURES		

AR200816

UNUSUAL FIRE AND EXPLOSION HAZARDS Rupture of container above 130°F could cause boiling liquid flash fire if ignited.

ORIGINAL  
Date

**SECTION V - HEALTH HAZARD DATA**

**THRESHOLD LIMIT VALUE** See Section II

**EFFECTS OF OVEREXPOSURE** Irritation, dizziness, Headache, unconsciousness, asphyxiation.  
Excess liquid contact with skin will dry and defat the skin.

**EMERGENCY AND FIRST AID PROCEDURES**  
Vapor: Remove from contact, call a physician. If breathing is irregular or stopped, start resuscitation, administer oxygen. Swallowed: Give two glasses of water. Induce vomiting immediately by sticking finger down throat. Call a physician. Never give an unconscious person anything by mouth. Skin: Wash with warm soap and water, remove contaminated clothing. Eyes: Flush with clear water for 15 minutes or until irritation subsides.

**SECTION VI - REACTIVITY DATA**

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	
INCOMPATIBILITY (Materials to avoid)			
Strong oxidizing agents			
HAZARDOUS DECOMPOSITION PRODUCTS			
None			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

**SECTION VII - SPILL OR LEAK PROCEDURES**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED** Leaking cans should be placed in open pail outdoors until pressure has dissipated, then dispose of.

**WASTE DISPOSAL METHOD** Bury at approved landfill in accordance with Local, State, and Federal Law.

**SECTION VIII - SPECIAL PROTECTION INFORMATION**

**RESPIRATORY PROTECTION (Specify type)** None

VENTILATION	LOCAL EXHAUST	SUFFICIENT TO KEEP SOLVENT VAPOR BELOW TLV	SPECIAL	None
	MECHANICAL (General)		OTHER	None

**PROTECTIVE GLOVES** None      **EYE PROTECTION** None

**OTHER PROTECTIVE EQUIPMENT** None

**SECTION IX - SPECIAL PRECAUTIONS**

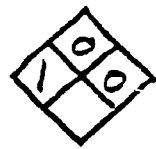
**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING** Keep from sources of ignition. Do not take internally. Avoid excessive inhalation of aerosol.

**OTHER PRECAUTIONS** Do not store above 120°F. Do not incinerate or puncture containers.

AR2008 7

# MATERIAL SAFETY DATA SHEET

*Zimmerman*  
*Inc.*



Required under USDL Safety and Health Regulations for Ship Repairing,  
Shipbuilding, and Shipbreaking (29 CFR 1915, 1910, 1917)

PPE B  
UN 1142

## SECTION I

MANUFACTURER'S NAME <b>RITE-OFF, INC.</b>		EMERGENCY TELEPHONE NO. <b>(516) 665-6868</b>
ADDRESS (Number, Street, City, State, and ZIP Code) <b>1545 Fifth Industrial Ct. Bay Shore, NY 11706</b>		
CHEMICAL NAME AND SYNONYMS <b>Stainless Steel</b>		TRADE NAME AND SYNONYMS <b>802</b>
CHEMICAL FAMILY	FORMULA	

## SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS <b>1,1,1. Trichlorethane</b>	<b>68</b>		FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)

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## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)		SPECIFIC GRAVITY (H <sub>2</sub> O=1)	<b>C. MURAWOZYK</b>
VAPOR PRESSURE (mm Hg.)		PERCENT VOLATILE BY VOLUME (%)	
VAPOR DENSITY (AIR=1)		EVAPORATION RATE (_____ =1)	
SOLUBILITY IN WATER	<b>none</b>		
APPEARANCE AND COLOR			

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	<b>none</b>	FLAMMABLE LIMITS	Lel	Uel
EXTINGUISHING MEDIA	<b>CO<sub>2</sub></b>			
SPECIAL FIRE FIGHTING PROCEDURES <b>Standard method used by fire dept.</b>				
UNUSUAL FIRE AND EXPLOSION HAZARDS <b>None that we know of</b>				

AR200818



DIRS-NAI  
(10/01)

### SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
EFFECTS OF OVEREXPOSURE Slight Drowsiness
EMERGENCY AND FIRST AID PROCEDURES Over inhalation-get fresh air immediately Eye contact-flush off with water. If irritation persists see physician.

### SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	
INCOMPATIBILITY (Materials to avoid) Do not mix with foreign chemicals			
HAZARDOUS DECOMPOSITION PRODUCTS			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	As far as we know.

### SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED 1- Flush off with water mixed with detergents based with cleaning compound. 2- If released in air, generate ventilation
WASTE DISPOSAL METHOD Check with local sewer dept.

### SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)		
VENTILATION	LOCAL EXHAUST X	SPECIAL
	MECHANICAL (General)	OTHER
PROTECTIVE GLOVES rubber gloves if available	EYE PROTECTION	
OTHER PROTECTIVE EQUIPMENT		

### SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Keep away from open flame.
OTHER PRECAUTIONS



36.  
RDC Info

ORIGINAL  
(Rev)

MATERIAL SAFETY DATA SHEET

**STARTEX CHEMICAL, INC.**

P.O. Box 1797 Name: STORAGETEK HUB & TRANSPORT CLEANER FLUID  
Bellaire, Texas 77401  
(409) 539-6244

CHEMICAL FAMILY: Halogenated Hydrocarbon, Alcohol and Stabilizer.

SYNONYMS: Trichlorotrifluoroethane + Isopropanol Mixtures + Stabilizer.

FORMULA:  $CCl_2FCClCF_2 + CH_3CHOHCH_3 + CH_3NO_2$

CAS NAME: Ethane, 1,1,2-Trichloro-1,2,2,-Trifluoro, Isopropyl Alcohol, Methane, Nitro

CAS REGISTRY: 76-13-1 67-63-0 75-52-5

MANUFACTURER/DISTRIBUTOR: E. I. duPont de Nemours & Co. (Inc.)

MEDICAL EMERGENCY PHONE: (800) 441-3637

ADDRESS: Freon<sup>R</sup> Products Division, Wilmington, DE. 19898

TRANSPORTATION EMERGENCY PHONE: CHEMTREC (800) 424-9300

PHYSICAL DATA

Boiling Point (F°)	120.0
Density: (g/cc @77°F)	1.115
Vapor Density (Air=1)	4.9
Vapor Pressure mm Hg @77°F	151
Solubility in H <sub>2</sub> O	(1)
Evaporation Rate (CCl <sub>4</sub> =1)	Not Determined
pH Information: Neutral	
Percent Volatile by Volume:	100

Form: Liquid

Appearance: Clear

Color: Colorless

Odor: Slight Solvent Odor

(1) Alcohol portion is miscible with water. See special fire fighting instructions.

HAZARDOUS COMPONENTS

Trichlorotrifluoroethane	64.7%
Isopropyl Alcohol	35.0%
Nitromethane	0.3%

AR200820

HAZARDOUS REACTIVITY

Stability: Materials are stable. However, avoid open flames and high temperatures.  
Incompatibility: Alkali or alkaline earth metals - powdered Al, Zn, Be, etc.  
Decomposition: The components of these blends can be decomposed by high temperatures (open flames, glowing metal surfaces, etc.) forming hydrochloric and hydrofluoric acids and possible carbonyl halides.  
Polymerization: Will not occur.

FIRE AND EXPLOSION DATA

Flash Point: None to boil. Reduces to 90° after 45% evaporation.  
Method: TOC  
Autoignition Temperature: Trichlorotrifluoroethane not determined, Isopropanol 860°F.  
Flammable Limits in Air, % by volume:  
Lower: Nonflammable Upper: Nonflammable  
Autodecomposition Temperature: Not determined.  
Fire and Explosion: Drums may rupture under fire conditions. Decomposition may occur.  
Extinguishing Media: Nonflammable.  
Special Fighting Instructions: Addition of excess water will extract isopropyl alcohol and may form a flammable, supernatant layer. Self-contained breathing apparatus may be required if drums rupture and contents are spilled under fire conditions.

HEALTH HAZARD INFORMATION

Principal Health Hazards:

Inhalation: Vapor is heavier than air and may cause suffocation by reducing oxygen available for breathing. Breathing high concentrations of these products can cause light headedness, giddiness, shortness of breath, irritation of the upper respiratory passages, and may lead to narcosis, cardiac irregularities, unconsciousness or death. Trichlorotrifluoroethane LD 50 Rat 52,000 ppm/4hrs., Isopropanol LD 50 Rat 16,000 ppm/4hrs.  
Skin: Not a corrosive or irritant after single contact; however, repeated liquid contact can cause defatting of the skin resulting in irritation. This material is poorly absorbed through the skin.  
Eye: Isopropanol is an eye irritant.  
Oral: Although oral toxicity is low (Trichlorotrifluoroethane-LD 50 Rats 43,000 mg/kg, Isopropyl Alcohol-LD 50 Rats 5.840 mg/kg, Nitromethane-LD 50 Rats 1,210 mg/kg), ingestion is to be avoided.

Exposure Limits:

PEL (OSHA) :	Trichlorotrifluoroethane	1000 ppm
	Isopropanol	400 ppm
	Nitromethane	100 ppm
TLV (ACGIH) :	Trichlorotrifluoroethane	1000 ppm
	Isopropanol	400 ppm
	Nitromethane	100 ppm
	Hub & Trans. Cleaner Fluid	500 ppm

AR200821

Safety Precautions: Avoid breathing vapors and prolonged skin exposures. Use only in well ventilated areas.

ORIGINAL  
(Red)First Aid:

Inhalation: Remove to fresh air, call a physician. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Do not give epinephrine or similar drugs.

Note to Physicians: Because of possible increased risk of eliciting cardiac dysrhythmias, catecholamine drugs, such as epinephrine, should be considered only as a resort in life-threatening emergencies.

Eye: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

Skin: Flush with water. Get medical attention if irritation is present.

Oral: No specific intervention is indicated as the material is not likely to be hazardous by ingestion. Do not induce vomiting as the hazard of aspirating the material into the lungs is a greater hazard than allowing it to progress through the intestinal tract.

Medical Conditions Possibly Aggravated by Exposure:

Cardiovascular Disease: See Principal Health Hazards: Inhalation Section.

Other Health Hazards:

The components are not listed as carcinogens by IARC, NTP, or OSHA. Based on animal studies and human experiences this mixture poses no hazard to man relative to systemic toxicity, carcinogenicity, mutagenicity, or teratogenicity when occupational exposures are below its recommended exposure limits.

PROTECTION INFORMATION

Generally Applicable Control Measures: Normal ventilation for standard manufacturing procedures is generally adequate. Local exhaust should be used when large amounts are released. Mechanical ventilation should be used in low places.

Personal Protective Equipment: Butyl gloves should be used to avoid prolonged or repeated exposure. Chemical splash goggles should be available for use as needed to prevent eye contact. Under normal manufacturing conditions no respiratory protection is required when using this product. Self-contained breathing apparatus (SCBA) is required if a large spill occurs.

DISPOSAL INFORMATION

Spill, Leak or Release: Ventilate area. Do not flush into sewers. Dike spill. Collect with an absorbent material and transfer to steel drums for recovery or disposal. Comply with federal, state and local regulations on reporting release.

Waste Disposal: Comply with federal, state and local regulations. Remove to a permitted waste disposal facility. EPA Hazardous Waste Nos. F001 and F002 may apply to waste materials.

AR200822

SHIPPING INFORMATIONDomestic-Other Than Air (DOT)

Proper Shipping Name: Not regulated.

International Water or Air (IMO/ICAO)

Proper Shipping Name: Not regulated.

Other Information:

Shipping Containers: Drum, Tank Trucks, Tank Cars.

Shipping Conditions: Clean, dry area. Do not heat above 125°F.

Date Prepared: 6/9/86

Prepared By: *Ann Nelson*

AR200823

**Material Safety Data Sheet**

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

HMIS: 120

**U.S. Department of Labor**

Occupational Safety and Health Administration  
(Non-Mandatory Form)

Form Approved #17699

OMB No. 1218-0072

ORIGINAL  
(Red)



IDENTITY (As Used on Label and List)

STRIP-ALL

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

**Section I**

Manufactured For  
ALPHA SYSTEMS UNLIMITED, INC.  
Address (Number, Street, City, State, and ZIP Code)  
P.O. BOX 8784  
CORAL SPRINGS, FLORIDA  
33065

Emergency Telephone Number  
Telephone Number for information  
(305) 752-0552  
Date Prepared  
SEPTEMBER 6, 1986  
Signature of Preparer (optional)

**Section II — Hazardous Ingredients/Identify Information**

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
ETHYLENE GLYCOL-n-BUTYL ETHER (111-76-2)	50ppm	25ppm	MAK:20ppm	5-10%
POTASSIUM HYDROXIDE (1310-58-3)		CL 2 mg/m <sup>3</sup>		5-10%

**Section III — Physical/Chemical Characteristics**

Boiling Point EXCEEDS	212°F	Specific Gravity (H <sub>2</sub> O = 1)	1.001
Vapor Pressure (mm Hg.)	ND	Melting Point	NA
Vapor Density (AIR = 1)	> 1	Evaporation Rate (Butyl Acetate = 1)	> 1
Solubility in Water 100%			

Appearance and Odor  
CLEAR PURPLE LIQUID WITH BUTYL ODOR.

**Section IV — Fire and Explosion Hazard Data**

Flash Point (Method Used) 160°F. (COC)	Flammable Limits	LEL 1.1	UEL 10.6
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Extinguishing Media  
CARBON DIOXIDE, DRY CHEMICAL, ALCOHOL FOAM.

Special Fire Fighting Procedures  
KEEP DRUMS AND CONTAINERS EXPOSED TO FIRE AND HEAT COOL WITH WATER  
SPRAY.

Unusual Fire and Explosion Hazards  
MODERATE FIRE HAZARD WHEN EXPOSED TO HEAT, OPEN FLAME OR POWERFUL OXIDIZERS.

AR200824

WASH EFFECTED AREAS IMMEDIATELY UPON CONTACT.

Work Hygienic Practices

EMERGENCY EYE WASH AND SAFETY SHOWER.

Protective Clothing or Equipment

GOGGLES OR FACE SHIELD

RUBBER OR PVC

Protective Gloves

ONLY IF ABOVE IS INSUFFICIENT

Other

Mechanical (General)

STANDARD VENTILATION

Special

Local Exhaust

Ventilation

FOR VERY LARGE SPILLS BREATHING APPARATUS IS REQUIRED.

Respiratory Protection (Specify Type)

Section VIII - Control Measures

AVOID PROLONGED CONTACT WITH MANY PLASTICS AND RESINS.

Other Precautions

AND FLAMES.

KEEP UNUSED CONTAINER CLOSED. KEEP AWAY FROM HEAT, SPARKS

Precautions to Be Taken in Handling and Storing

MAY BE INCINERATED OR IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

Waste Disposal Method

AND SWEEP TO CONTAINMENT AREA.

ALLOW TO EVAPORATE IN FUME HOOD. FOR LARGE QUANTITIES ABSORB WITH CLAY-TYPE ABSORBENT

FOR SMALL QUANTITIES ABSORB WITH PAPER TOWELS AND

Steps to Be Taken in Case Material is Released or Spilled

Section VII - Precautions for Safe Handling and Use IF NOT UNCONSCIOUS.

CALL TO FRESH AIR. INTERNAL: GET MEDICAL ATTENTION: GIVE SALT WATER AND INDUCE VOMITTING

EYES: IRRIGATE IMMEDIATELY. SKIN: WASH WITH SOAP & WATER. REMOVE

Emergency and First Aid Procedures

RESPIRATORY TRACT PROBLEMS MAY BECOME AGGRAVATED.

Medical Conditions

Generally Aggravated by Exposure

EYE AND OR MUCOUS MEMBRANE IRRITATION SHOULD BE NOTED FIRST.

Signs and Symptoms of Exposure

OSHA Regulated? NO

AARC Monographs? NO

NTP? NO

Carcinogenicity:

RED AFTER MAJOR INHALATION.

IRRITATION OF THE EYES, NOSE AND THROAT AND MAY CAUSE URINE TO BE

Health Hazards (Acute and Chronic)

ORAL

Ingestion?

MODERATE Skin?

MODERATE

Inhalation?

Route(s) of Entry:

Section VI - Health Hazard Data

XXX

Will Not Occur

Hazardous Polymerization

Conditions to Avoid

May Occur

TOXIC GASES AND VAPORS MAY BE RELEASED IN A FIRE.

Hazardous Decomposition Products

POWERFUL OXIDIZERS

Stability (Materials to Avoid)

XXX

Stable

HEAT AND FLAMES

Conditions to Avoid

Unstable

Stability

Section V - Reactivity Data

1100



# Material Safety Data Sheet

ORIGINAL  
(REV)

00330

Manufacturers Name: The Butcher Polish Company  
 Address: 120 Bartlett Street, Marlborough, MA 01752  
 Emergency Telephone No: (617) 481-5700

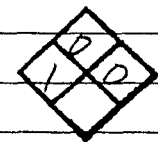
Signature of Person Responsible for Preparation: *Bonita C Patterson*  
 Date Prepared: March 19, 1985

## IDENTITY

Common Name (used on label) / Trade Name & Synonyms: **SUNBONNET Lemon Wax**

## INGREDIENT INFORMATION

Principal Hazardous Component(s) (chemical & common name(s))	CAS No	%	Threshold Limit Value (units)
Mineral Spirits	64741-65-7	15-10	NE
Butane	106-97-8	6-9	800ppm
Propane	74-98-6	1-3	1000ppm



PPE: B  
 UN: 1142

## PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point: 212°F  
 Specific Gravity (H<sub>2</sub>O = 1): NA  
 Vapor Pressure: 30-34 psig @ 64°F  
 Percent Volatile by Volume (%): NA  
 Vapor Density (Air = 1): ND  
 Evaporation Rate (H<sub>2</sub>O = 1): ND  
 Solubility in Water: Dispersible  
 Appearance and Odor: Aerosol product; lemon odor

Flash Point: NA  
 Flammable Limits in Air % by Volume: Lower ND Upper  
 Extinguisher Media: Foam, CO<sub>2</sub>, dry chemical

Special Fire Fighting Procedures: This product is not flammable as per 16 CFR 1500.45. Cool uninvolved containers with water. Full protective equipment should be worn when this product is involved in a fire.

Unusual Fire and Explosion Hazards: Contents under pressure. Container may explode if exposed to excessive heat.

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AR200826

C. MURAWCZYK

ND = Not Determined

NE = Not Established

NA = Not Applicable





Common Name (used on label) SUNBONNET Lemon Wax  
Trade Name & Synonyms

REACTIVITY DATA

Stability: Unstable  Conditions  
Stable  to Avoid None known

Incompatibility (Materials to Avoid) None known to THE BUTCHER POLISH COMPANY.

Hazardous Decomposition Products Normal products of combustion.

Hazardous Polymerization: May Occur  Conditions to Avoid  None known to THE BUTCHER POLISH COMPANY.

HAZARD DATA

Signs and Symptoms of Overexposure Direct contact of product with eyes may cause irritation. Prolonged or repeated contact of product with skin may cause irritation. Preexisting eye disorders may be aggravated.

Chemical Listed as Carcinogen or Potential Carcinogen None

Emergency and First Aid Procedures

- 1 Inhalation Remove to fresh air. Call a physician if symptoms persist.
- 2 Eyes Flush with water for at least 15 minutes. Call a physician if irritation develops.
- 3 Skin Flush with water. Call a physician if irritation develops.
- 4 Ingestion Drink large quantities of water. Do not induce vomiting. Call a physician.

SPECIAL PROTECTION INFORMATION

Respiratory Protection None required if good ventilation is maintained.  
Protective Gloves If prolonged or repeated contact is possible wear rubber or other impervious gloves.  
Eye Protection Where eye contact may be a problem, wear chemical splash goggles.

SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

Precautions to be Taken in Handling and Storage Use good personal hygiene practice. Wash contaminated clothing and equipment before reuse.

Steps to be Taken in Case Material is Released or Spilled Before attempting clean-up, refer to Hazard Data above. Wipe up spill and wash area with detergent solution.

Waste Disposal Methods Dispose of this material in accordance with federal, state and local regulations.

AR200827

The information on this data sheet represents our current data and best opinion as to the proper use in handling of this product under normal conditions. Any use of the product which is not in conformance with this data sheet or which involves using the product in combination with any other product or any other process is the responsibility of the user.



# Material Safety Data Sheet

ORIGINAL  
(Red)

00640

Manufacturers Name: The Butcher Polish Company  
 Address: 120 Bartlett Street, Marlborough, MA 01752  
 Emergency Telephone No: (617) 481-5700

Signature of Person Responsible for Preparation: *Bonita C Paderson*  
 Date Prepared: March 19, 1985

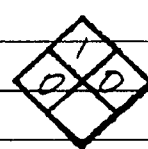
## IDENTITY

Common Name (used on label): **SUNDANCE Floor Cleaner**  
 Trade Name & Synonyms:

## INGREDIENT INFORMATION

Principal Hazardous Component(s) (chemical & common names)      CAS No      %      Threshold Limit Value (units)

This product is not hazardous as per 29 CFR 1910.1200.



PPE: B  
 UN: 1142

## PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point: 212°F      Specific Gravity (H<sub>2</sub>O = 1): 1.01      Vapor Pressure: ND

Percent Volatile by Volume (%): 96      Vapor Density (Air = 1): ND      Evaporation Rate (\_\_\_\_\_ = 1): ND

Solubility in Water: Complete

Appearance and Odor: Slightly opaque yellow liquid; new mown hay odor.

Flash Point: 200°F+      Flammable Limits in Air % by Volume: Lower ND, Upper NA      Extinguisher Media: NA

Special Fire Fighting Procedures: This product is not flammable.

Unusual Fire and Explosion Hazards: None known to THE BUTCHER POLISH COMPANY.

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ND = Not Determined

NE = Not Established

NA = Not Applicable



Common Name (used on label) **SUNDANCE Floor Cleaner**  
Trade Name & Synonyms

**REACTIVITY DATA**

Stability:  Instable  Conditions Stable  to Avoid **None known**

Incompatibility: **Materials to Avoid: None known to THE BUTCHER POLISH COMPANY.**

Hazardous Decomposition Products: **Normal products of combustion.**

Hazardous Polymerization:  May Occur  Conditions With NOT Occur  to Avoid **None known to THE BUTCHER POLISH COMPANY**

**HAZARD DATA**

Signs and Symptoms of Overexposure: **Direct contact of product with eyes may cause mild irritation.**

**Prolonged or repeated contact of product with skin may cause irritation.**

Chemical Listed as Carcinogen or Potential Carcinogen: **None**

Emergency and First Aid Procedures:

1 Inhalation: **Remove to fresh air. Call a physician if symptoms persist.**

2 Eyes: **Flush with water for at least 15 minutes. Call a physician if irritation develops.**

3 Skin: **Flush with water. Call a physician if irritation develops.**

4 Ingestion: **Drink large quantities of water. Do not induce vomiting. Call a physician.**

**SPECIAL PROTECTION INFORMATION**

Respiratory Protection: **None required if good ventilation is maintained.**

Protective Gloves: **If prolonged or repeated contact is possible wear rubber or other impervious gloves.**

Eye Protection: **Where eye contact may be a problem, wear chemical splash goggles.**

**SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES**

Precautions to be Taken in Handling and Storage: **Use good personal hygiene practice. Wash contaminated clothing and equipment before reuse.**

Steps to be Taken in Case Material is Released or Spilled: **Before attempting clean-up, refer to Hazard Data above. Use mop or wet vacuum to collect material for proper disposal. Rinse area with water.**

Waste Disposal Methods: **Dispose of this material in accordance with federal, state and local regulations.** AR200029

Bullen Trade Name

Type Product

Code

PREPARED BY BULLEN CHEMICAL CO., DELMAR DR., BOX 37, FOLCROFT, PA 19032 • EMERGENCY PHONE 215/724-8100

**MATERIAL SAFETY DATA SHEET**  
(Prepared According to 29 CFR 1910.1200)


Date Prepared 12/16/85 *TJF*

**SECTION 1 - PRODUCT IDENTIFICATION**

Distributor Name <b>ZIMMERMAN</b>	Emergency Telephone No.
Address	
Trade Name <b>SUPER GLOSS WAX</b>	Product Type

**SECTION 2 - HAZARDOUS INGREDIENTS**

CHEMICAL NAME/COMMON NAME	CAS NO.	PERCENT (optional)	TLV (Source)
Acrylic copolymer (Trade secret)	Mixture		Not established



PPE B  
UN 1142

Other Ingredients in Product are  Less than 1% by Weight or  Less than 0.1% for Carcinogens  Not Hazardous  Declared to be Trade Secrets

**SECTION 3 - PHYSICAL DATA**

Boiling Point (°F) <b>Near 212</b>	Specific Gravity (H <sub>2</sub> O = 1.0) <b>1.020 ± 0.005</b>	pH <b>8.5 ± 0.5</b>
Vapor Pressure (mmHg) <b>Not known</b>	Vapor Density (Air = 1) <b>Not known</b>	
Solubility in Water <input type="checkbox"/> Complete <input type="checkbox"/> Insoluble <input checked="" type="checkbox"/> Emulsifiable (or dispersible) <input type="checkbox"/> Slight (or partial)	Evaporation Rate (vs H <sub>2</sub> O) <input type="checkbox"/> Faster <input checked="" type="checkbox"/> Slower <input type="checkbox"/> About the Same	
Appearance and Odor <b>Milky liquid, characteristic odor</b>		

**SECTION 4 - FIRE AND EXPLOSION HAZARD DATA**

Flash Point (T.C.C.) <input checked="" type="checkbox"/> None to Boiling	Flammable Limits Upper <b>Not known</b> Lower <b>Not known</b>
Extinguishing Media <b>CO<sub>2</sub>, dry chemical, foam, water spray</b>	
Special Fire Fighting Procedures <b>None known</b>	

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Unusual Fire and Explosion Hazards **Product will not burn but may splatter if temperature exceeds boiling point. Polymer films are capable of burning.**

**AR200830**

**SECTION 5 - REACTIVITY DATA**

<input checked="" type="checkbox"/> Stable <input type="checkbox"/> Unstable	Incompatibility <b>N/A</b>
Hazardous Decomposition Products <b>Carbon monoxide and other unidentified organic compounds may occur during incomplete combustion.</b>	

**SECTION 6 - HEALTH HAZARDS**

Threshold Limit Value - Product (See Section 2 for Ingredient TLV)  None Established  Not Applicable Source

Primary Routes of Exposure  Eye  Skin  Oral  Inhalation  Other

Signs and Symptoms of Overexposure (Acute) Eyes: redness, irritation. Effects of overexposure to compositionally similar products (typical values); Rat oral LD<sub>50</sub> > 5 gm/kg; rabbit, dermal LD<sub>50</sub> > 75 gm/kg; rabbit, skin irritation: practically non-irritating. 72 hr. mean irritation score = 0 to 2; rabbit, eye irritation: mild to moderate irritation.

Signs and Symptoms of Overexposure (Chronic) Skin: repeated or prolonged exposure may cause skin irritation. Inhalation of vapors or spray mists in poorly ventilated areas may cause irritation of the mucous membranes with symptoms of headache and nausea.

Medical Conditions Aggravated by Overexposure  
Not known

Carcinogen or Suspect Carcinogen Ingredients:  NTP  ARC  OSHA  None

**SECTION 7 - EMERGENCY AND FIRST AID PROCEDURES IN CASE OF OVEREXPOSURE**

Eyes Flush with water for at least 15 minutes. If persistent irritation occurs, call physician.

Skin Wash thoroughly with soap and water.

Ingestion Give two glasses of water to drink. Call a physician.

Inhalation Remove exposed person to fresh air. Treat symptomatically.

**SECTION 8 - SPECIAL PROTECTION INFORMATION**

Respiratory Protection Not needed under normal conditions of use.

Ventilation Requirements  Local Exhaust  Mechanical  Other

Protective Gloves impervious Eye Protection safety glasses or goggles

Other Protective Clothing  
N/A

**SECTION 9 - SPILL OR LEAK PROCEDURES**

Steps to be Taken if Released or Spilled Dike and contain spill with suitable absorbent and collect for disposal. Floors may be slippery. Care should be exercised to avoid falls.

Waste Disposal Methods... Dispose of in accordance with applicable federal, state and local ordinances. AR200831

**SECTION 10 - STORAGE AND HANDLING INFORMATION**

Precautions to be Taken in Handling and Storage Avoid freezing. Product may coagulate. Use with adequate ventilation. Avoid contact with eyes. Wash thoroughly after handling.

# Material Safety Data Sheet

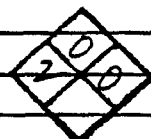
ORIGINAL  
(Rev)

## SECTION I — IDENTITY AND MANUFACTURER'S INFORMATION

Manufacturer's Name <b>Canberra Corporation</b>	Product Name <b>ZENE Bowl Cleaner (23% HCl)</b>
Address <b>3610 Holland-Sylvania Rd. Toledo, OH 43615</b>	Date Prepared <b>4-10-86</b>
Emergency Telephone No. And Other Information Calls <b>419-841-6616</b>	Prepared by <b>Regulatory Affairs Department</b>

## SECTION II — HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components (Specific Chemical Identity; Common Name(s))	CAS #'s	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (Optional)
Hydrochloric Acid	7647-01-0	N/A	5 ppm	N/A	23.0%
N-Alkyl Dimethylbenzyl Ammonium Chloride	68391-01-5	N/A	N/A	N/A	0.05



PPE C  
 DEX 1760

## SECTION III — PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	N/A	Specific Gravity (H <sub>2</sub> O = 1)	1.122
Vapor Pressure (mm Hg.)	N/A	Percent Volatile By Volume (%)	> 95%
Vapor Density (AIR = 1)	N/A	Evaporation Rate ( = 1)	N/A
Solubility in Water	Complete	Appearance and Odor	Pink liquid/pungent odor

## SECTION IV — FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used) <b>None</b>	Flammable Limits	LEL <b>N/A</b>	UEL <b>N/A</b>
Extinguishing Media <b>N/A</b>			
Special Fire Fighting Procedures <b>N/A</b>			

Unusual Fire and Explosion Hazards **Release of corrosive hydrogen chloride gas may result at elevated temperatures.**

## SECTION V — PHYSICAL HAZARDS

Stability  Unstable  Stable  Conditions to Avoid **Contact with light metals may generate hydrogen gas.**

Incompatibility (Materials to Avoid) **Ammonia; Bleach - Do not mix with other chemicals.**

Hazardous Decomposition Products Or Byproducts **Chlorine Gas; Hydrogen Gas**

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**AR200832**  
 OCT 14 1988

Hazardous Polymerization  May Occur  Will Not Occur  Conditions To Avoid **N/A**

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**SECTION VI - HEALTH HAZARD DATA**

Rout(e)s of Entry: Inhalation?  Skin?  Ingestion?

Health Hazards (1 Acute and 2 Chronic) Acute - Causes chemical burns. Chronic - no information on chronic health hazard is currently available.

Chemical Listed as Carcinogen or Potential Carcinogen: National Toxicology Program Yes  No  I.A.R.C. Monographs Yes  No  OSHA Yes  No

Signs and Symptoms of Exposure: Irritation, burning of mucous membranes and respiratory system.

Medical Conditions Generally Aggravated by Exposure: Persons with respiratory ailments may find those conditions aggravated during personal use of this product.

Emergency and First Aid Procedures: Eye contact - Immediately flush eye with plenty of water for 15 minutes. Get medical attention. Skin Contact - Flush skin immediately with cool water. Wash with soap and water. Remove contaminated clothing. Inhalation - Remove to fresh air. Get medical attention. Ingestion - Do not induce vomiting. Give milk, water or egg whites and get medical attention immediately.

**SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE**

Steps To Be Taken In Case Material Is Released Or Spilled

Contain spill and collect in approved container. Ventilate area to dissipate fumes. Rinse with dilute bicarbonate solution to neutralize residue.

Waste Disposal Method: Waste or unused material may be rendered non-hazardous by neutralization with dilute alkaline solution. Caution - Never add concentrated alkali to this product. Triple rinse container, wrap and discard in trash.

Precautions To Be Taken In Handling And Storing: Keep container closed when not in use. Use with toilet bowl mop or applicator. Use only according to label directions. Do not mix with other chemicals.

Other Precautions: Keep out of reach of children. Avoid contact with skin or eyes. Avoid prolonged breathing of vapor.

**SECTION VIII - CONTROL MEASURES**

Respiratory Protection (Specify Type): Not normally required

Ventilation: Local Exhaust Adequate Mechanical (General) -----Not required----- Other

Protective Gloves: Rubber Eye Protection: Face shield and/or chemical goggles

Other Protective Clothing Or Equipment: Rubber apron and boots recommended

Work/Hygienic Practices: Good housekeeping practices apply.

**NOTICE: NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OF ANY OTHER NATURE, ARE MADE WITH RESPECT TO INFORMATION CONCERNING THE PRODUCT REFERRED TO IN THIS MATERIAL SAFETY DATA SHEET.** The goal of defining precisely, in measurable terms, every possible health effect that may occur in the workplace as a result of chemical exposures cannot realistically be accomplished. The information and recommendations contained in this Material Safety Data Sheet are supplied pursuant to 29 C.F.R. 1910.1200 of the Occupational Safety and Health Standards Hazard Communication Rule. The information and recommendations set forth herein are presented in good faith and believed to be correct as of the date hereof. Canberra Corporation, however, makes no representations as to the completeness or accuracy thereof, and information is supplied upon the express condition that the persons receiving same will be required to make their own determination as to its suitability for their purposes prior to use. In no event will Canberra Corp. be responsible for any damages of any nature whatsoever resulting from the use of, reliance upon, or the misuse of this information. The information as supplied herein is simply to be informative and intended solely to alert the user of the substance which is the subject matter of this Material Safety Data Sheet. The ultimate compliance with federal, state or local regulations concerning the use or disposal of this compound, or compliance with respect to products liability, rests solely upon the purchaser thereof.



# GORDON'S

PROFESSIONAL TURF PRODUCTS

## Product Information

ORIGINAL  
(Red)



# TRIMEC®

## BROADLEAF HERBICIDE

### WIDE-SPECTRUM WEED CONTROL

#### TRIMEC® IS #1 BECAUSE:

- Controls the widest range of broadleaf weeds
- Gets hard-to-kill species without repeated applications
- Gives wide margin of safety to lawn grasses
- Minimum hazard from root absorption to nearby flowers and ornamentals, deciduous and coniferous trees and shrubs
- No vapor action after application
- Effective weed control at a wide range of temperatures
- Sequestered to overcome water-hardness problems
- Treated areas may be seeded within two weeks
- Non-flammable and non-corrosive in use
- Product stable for several years but subject to freezing at temperatures below 32° F.
- Biodegradable: friendly to the environment

ONLY TRIMEC® HAS THEM ALL

Read label before use.

GORDON'S PROFESSIONAL TURF PRODUCTS



1217 WEST 12TH STREET  
P.O. BOX 4090  
KANSAS CITY, MISSOURI 64101  
816/421-4070

TRIMEC is the most effective and most efficient broadleaf herbicide available. It positively controls the widest spectrum of broadleaf weeds, including hard-to-kill species, usually with only one application.

TRIMEC's cost-per-acre is low because the synergistic (more-than-additive) action of its components is fully effective with small amounts of chemicals. This also helps provide a wide margin of safety to lawn grasses, flowers and ornamentals (deciduous and coniferous) because root absorption is minimal.

TRIMEC has been thoroughly proven in commercial use in all parts of the United States, in all kinds of weather. Its effectiveness in cool temperatures — even below 50° F. — is firmly established when weeds are growing, allowing early-spring and early-winter use. TRIMEC is the best available weed control for golf courses, lawns, cemeteries, along highways, on sod farms, in public parks — wherever immaculate turf must be maintained.

#### RECOMMENDED USES

Broadleaf weed control in turf; golf courses, lawns, cemeteries, along ditchbanks and highways, on sod farms, public parks.

#### ACTIVE INGREDIENTS

2,4-D, MCPP and Dicamba (see label on back).

#### PACKAGING

U.S. Gallons: 6 x 1 cans per case:	
shipping weight .....	64 lbs.
2½-gallon plastic jugs: 2 x 2½ per case:	
shipping weight .....	64 lbs.
5-gallon can (while available): shipping weight .....	52 lbs.
30-gallon drum: shipping weight .....	308 lbs.
55-gallon drum: shipping weight .....	575 lbs.

AR-200834





READ THE ENTIRE LABEL FIRST. OBSERVE ALL PRECAUTIONS AND FOLLOW DIRECTIONS CAREFULLY.

**PRECAUTIONARY STATEMENTS**

**Hazards to Humans & Domestic Animals**  
 Corrosive. Causes eye damage and skin irritation. Do not get in eyes, on skin or on clothing. Wear goggles, face shield, or safety glasses, and rubber gloves when handling. Harmful if swallowed or inhaled. Avoid exposure to spray mist. Wash thoroughly after handling.

**Environmental Hazards**  
 Do not apply directly to any body of water. Do not apply when weather conditions favor drift away from target area. Do not contaminate water by cleaning of equipment or disposal of wastes. Do not contaminate domestic or irrigation waters.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

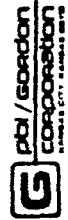
**STORAGE & DISPOSAL**

Store in original container in a locked storage area. Keep from freezing. To avoid cross-contamination, do not store near other pesticides, fertilizers, or seeds. **Product Disposal:** Do not contaminate water, food, or feed by storage or disposal. Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or empty container is prohibited. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance. **Container Disposal:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**USE PRECAUTIONS:**

Avoid drift of spray mist to vegetables, flowers, ornamental plants, shrubs, trees and other desirable plants. Do not pour spray, solutions near desirable plants. Do not use on carpet, grass, dandelions, not on lawns or turf where desirable clovers are present. Use only lawn-type sprayers. Avoid fine sprays. Coarse sprays are less likely to wind-drift. Do not spray roots of ornamentals and trees. Do not exceed specified dosages for any area, be particularly careful within the dripline of tree and other ornamental species. Do not apply to newly seeded grasses until well established. Do not spray when air temperature exceeds 85 degrees F. Seed can be safely sown 3 to 4 weeks after application. Some injury can be expected to turf when used on centipede or St. Augustine grass lawns. **Spot-spray** weeds on these types of grasses to avoid possible damage that could occur from an over-all spraying. After using this product, clean sprayer with soap or detergent and rinse thoroughly before using other pesticides in it. Care should be taken not to make applications where runoff could contaminate bodies of water or spray drift could carry herbicide chemical to food crops or grazing lands where cattle, sheep, goats, swine or poultry would be exposed.

861/684  
 EPA REG. NO. 2217-543  
 EPA EST. NO. 2217-KS-1



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**GORDON'S**  
 PROFESSIONAL TURF PRODUCTS

**TRIMEC®**  
 BROADLEAF HERBICIDE

ONE GALLON COVERS 2-2½ ACRES

**KILLS:** Dandelion, Chickweed, Knotweed, Plantains, Henbit, Spurge, Kudzu and many other species of broadleaf weeds, some of which are listed on this label.

KEEP FROM FREEZING

**ACTIVE INGREDIENTS:**

- \* Dimethylamine Salt of 2,4-Dichlorophenoxyacetic acid . . . . . 25.93%
- \*\* Dimethylamine Salt of 2-(2-methyl-4-chlorophenoxy) propionic acid . . . . . 13.85%
- \*\*\* Dimethylamine Salt of Dicamba (3,6-dichloro-o-anisic acid) . . . . . 2.76%
- INERT INGREDIENTS** . . . . . 57.46%

**THIS PRODUCT CONTAINS:**

- \* 2.03 lbs. 2,4-Dichlorophenoxyacetic acid per gallon or 21.54%
- \*\* 1.08 lbs. 2-(2-methyl-4-chlorophenoxy) propionic acid per gallon or 11.45%
- \*\*\* 0.21 lb. 3,6-dichloro-o-anisic acid per gallon or 2.29%
- \* Isomer Specific by AOAC Method 6 D01-5.

TOTAL 100.00%

**KEEP OUT OF REACH OF CHILDREN**  
**DANGER**

**Statement of Practical Treatment**  
**If In Eyes:** In case of eye contact, immediately flush eyes with plenty of water for 15 minutes. Call a physician at once.  
**If On Skin:** Wash promptly with soap and water. Rinse thoroughly. If irritation develops, get medical attention.  
**If Swallowed:** Drink one or two glasses of water, induce vomiting by touching back of throat with finger. Call a physician at once. Do not induce vomiting or give anything by mouth to an unconscious person.  
**If Inhaled:** Remove victim to fresh air and apply respiration, if indicated.  
 See additional precautionary statements elsewhere on this label.

TRIMEC® is a registered trademark of PBI/GORDON CORPORATION U.S. Patent No. 3,284,186

**ORNAMENTAL LAWNS & TURF** (cool season grasses other than closely-mowed Bentgrass)

Maximum kill of weeds will be obtained from spring or early fall applications when weeds are actively growing. Avoid spraying during long, excessively dry or hot periods unless adequate irrigation is available. Do not irrigate within 24 hours after application. Do not apply to newly seeded turf until after the second or third mowing. Grass seed can be safely sown 3 to 4 weeks after application at recommended rates. Do not use on dandelions, carpetgrass or St. Augustine grass.

**General Application:** Apply at the rate of 3/4 to 4 pints in 20 to 260 gallons of water per acre (12 oz. to 1.5 oz. in 1 to 6 gallons of water per 1,000 square feet). Use higher rates when using the higher volume of water per acre.

**Controlled Droplet Application:** Add 2 1/2 pints to the HERBI container and fill with water. Spray contents over 33,000 square feet. Avoid overlapping between spray patterns.

**Bentgrass Turf:** Or closely-mowed bentgrass (putting greens, bowling greens, and show lawns), apply at the maximum rate of 1 oz. per 1,500 square feet in 5 gallons of water. Do not apply when grass is under stress from drought or hot temperatures. Use only application equipment that is capable of distributing a uniform droplet over the entire area to be sprayed. Slight yellowing of turf will disappear after about one week.

**Note:** Care should be taken to avoid overdosing bentgrasses or injury may result. If hand-type sprayers are used it is preferable to use a single nozzle sprayer rather than a multiple nozzle boom-as sideways application with a boom where the spray from more than one nozzle is allowed to fall on the same area will result in heavy local overapplication and subsequent turf discoloration or injury.

**WEEDS**

- |             |               |                  |
|-------------|---------------|------------------|
| Bentgrass   | Henbit        | Purslane         |
| Black Medic | Knotweed      | Ragweed          |
| Burdock     | Lambquarters  | Sheep Sorrel     |
| Chicory     | Lepidoptera   | Shepherd's Purse |
| Chickweed   | Mallow        | Speedwell        |
| Clover      | Morning Glory | Spurge           |
| Dandelion   | Peppercress   | Wild Carrot      |
| Dock        | Pigweed       | Wild Garlic      |
| Ground Ivy  | Plantains     | Wild Lettuce     |
| Heal-all    | Poison Ivy    | Wild Onion       |
|             | Poison Oak    | Yarrow           |

**WARRANTY:**

The manufacturer warrants that the chemical composition conforms to the ingredient statement given on the label and that this product is suited for the labeled uses when applied according to label directions. Because of widely varying use conditions it is impossible to eliminate all risks even when label directions are followed. Therefore the manufacturer makes no other implied or express warranty nor is any agent of the manufacturer allowed to do so. Upon purchase of this product, the buyer assumes all risks associated with use of this product. In the event of damage resulting from a breach of warranty the buyer agrees to accept a refund of the purchase price of the product as full discharge of the manufacturer's liability.

ORIGINAL  
 (Red)

**Material Safety Data Sheet**  
 May be used to comply with  
 OSHA's Hazard Communication Standard,  
 29 CFR 1910.1200. Standard must be  
 consulted for specific requirements.

**U.S. Department of Labor**  
 Occupational Safety and Health Administration  
 (Non-Mandatory Form)  
 Form Approved  
 OMB No. 1218-0072



**IDENTITY** (As Used on Label and List) **TRADE SECRET**  
**UNBELIEVABLE! stain remover**

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

**Section I**

Manufacturer's Name <b>Core Products Co., Inc.</b>	Emergency Telephone Number <b>214+352-9778</b>
Address (Number, Street, City, State, and ZIP Code) <b>P.O. Box 153896-Irving, TX. 75015-3896</b>	Telephone Number for Information <b>214-352-9778</b>
<b>2614 Andjon Drive-Dallas, TX. 75220</b>	Date Prepared <b>April 14, 1986</b>
	Signature of Preparer (optional) <i>Teresa A. Heffner</i> <b>Teresa A. Heffner</b>

ORIGINAL  
(Red)

**Section II — Hazardous Ingredients/Identity Information**

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
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**\*\*NO HAZARDOUS MIXTURES\*\*** None as per 29 CFR 1910.1200.

WITH ACCORDANCE TO THE FEDERAL 'RIGHT TO KNOW' LAW

No C.A.S. Numbers required

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**Section III — Physical/Chemical Characteristics**

Boiling Point	<b>214°F</b>	Specific Gravity (H <sub>2</sub> O = 1)	<b>1.05</b>
Vapor Pressure (mm Hg.) @ 75°F	<b>22.377mm</b>	Melting Point	
Vapor Density (AIR = 1)		Evaporation Rate (Butyl Acetate = 1)	

Solubility in Water **Stable**

Appearance and Odor  
**Clear in color. Odorless**

**Section IV — Fire and Explosion Hazard Data**

Flash Point (Method Used) <b>COC°F 500°F</b>	Flammable Limits	LEL	UEL
---	------------------	-----	-----

Extinguishing Media  
**Water, Fog-Foam**

Special Fire Fighting Procedures  
**None**

Unusual Fire and Explosion Hazards  
**None**



**AR200836**

PPE **B**  
UN **142**

**Section V — Reactivity Data**

Stability	Unstable		Conditions to Avoid
	Stable		None

Incompatibility (Materials to Avoid)

Hazardous Decomposition or Byproducts

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	XX	

**Section VI — Health Hazard Data**

Route(s) of Entry:                      Inhalation?                      Skin?                      Ingestion?

Health Hazards (Acute and Chronic)

Carcinogenicity:                      NTP?                      IARC Monographs?                      OSHA Regulated?

Signs and Symptoms of Exposure

Medical Conditions  
Generally Aggravated by Exposure

Emergency and First Aid Procedures

If taken internally--Drink 16 fl. oz. of water      Eyes--Flush with water until clear      Skin Irritation--Non Irritating to skin

**Section VII — Precautions for Safe Handling and Use**

Steps to Be Taken in Case Material is Released or Spilled

Air Dry, Mop Dry

Waste Disposal Method

Standard Drainage-Non harmful to Metals, Aluminum, and PVC type Drainage

Precautions to Be Taken in Handling and Storing

Storage of finished cases should never extend 5 high. Temperatures in storage should be above 28\* F to prevent freezing and below 140\* F to prevent expansion. Finished cases should always be stored or shipped in an upright position to prevent leakage

**Section VIII — Control Measures**

Respiratory Protection (Specify Type)  
None Required

Ventilation	Local Exhaust	Special
	Mechanical (General)	Other

None Required

AR200837

Protective Gloves      Non Irritant to skin      Eye Protection      Not normally necessary (Chemical goggles may be worn)

Work/Hygienic Practices

Manufacturer: Xerox Corporation  
 Rochester, New York 14644  
 Emergency Tel. No. : (716) 422-2177  
 Information Tel. No.: (800) 828-6571

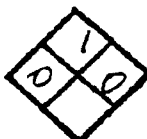
**Section I - Product Identification**

Trade Names/Synonyms: 1040/1045/1048/1050 Developer \* Part No.: 5R111, 5R127, 5R139,  
 5R140, 5R507, 5R505,  
 5R509

Chemical Name: None

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<u>Ingredients</u>	<u>CAS No.</u>
<u>Carrier (&gt;95%):</u> Iron Powder (>95%) Polymethylmethacrylate (<5%)	9011-14-7
<u>Toner (&lt;5%):</u> Styrene, Acrylate Copolymer (85-90%) Carbon Black (10-15%) Amorphous Silica (<1%)	25213-39-2 1333-86-4 7631-86-9



PPE A  
 IN NA

**Section II - Emergency and First Aid**

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Eyes: Flush with water.  
 Skin: Wash with soap and water.  
 Inhalation: Remove from exposure.  
 Ingestion: Dilute stomach contents with several glasses of water.  
 Primary Route of Entry: Inhalation  
 Symptoms of Overexposure: Minimal respiratory tract irritation may occur as with exposure to large amounts of any non-toxic dust.

Additional Information: See Sections V and VII.  
 Further information on file in Poisindex.

**Section III - Toxicology and Health Information**

*This material has been tested and evaluated by Xerox Corporation. When used as intended, it does not represent a health or safety hazard.*

Oral LD <sub>50</sub> : > 16 g/kg (Rats) practically non-toxic.	TLV: 10 mg/m <sup>3</sup> (Total Dust)
Dermal LD <sub>50</sub> : > 2.3 g/kg (Rabbits) practically non-toxic.	5 mg/m <sup>3</sup> (Respirable Dust)
Inhalation LC <sub>50</sub> : > 7.5 mg/l (Rats) practically non-toxic.*	
Eye Irritation: (Rabbits) non-irritating	PEL: 15 mg/m <sup>3</sup> (Total Dust)
Skin Sensitization: (Guinea Pigs) non-sensitizing	5mg/m <sup>3</sup> (Respirable Dust)
Skin Irritation: (Rabbits) mildly irritating	
Human Patch: Non-irritating, non-sensitizing	1XEL: 5 mg/m <sup>3</sup> (Total Dust)
Mutagenicity: No mutagenicity detected in Ames Assay.	
Carcinogens: None present	
Aquatic LC <sub>50</sub> : > 500 mg/l (Fathead Minnows) non-toxic	

Additional Information: The information noted above is toxicity data for toner. \*Not tested to the highest dose or concentration.

AR200838

1XEL - Xerox Exposure Limit

**Section IV - Physical Data**

Appearance/Odor: Black, granular / faint odor  
 Boiling Point: N.A.  
 Solubility in Water: N.A.  
 Evaporation Rate: N.A.  
 Vapor Density (Air = 1): N.A.  
 Volatile N.A. % (Wgt.) N.A. % (Vol.)

Softening Range: N.A.  
 Melting Point: N.A.  
 Specific Gravity (H<sub>2</sub>O = 1): N.A.  
 Vapor Pressure (mm Hg): N.A.  
 pH = N.A.

**Section V - Fire and Explosion Data**

Flash Point (Method Used): N.A.

Flammable Limits LEL: N.A.  
 UEL: N.A.

Extinguishing Media: Water, Foam, Dry chemical

Special Fire Fighting Procedures: Avoid inhalation of smoke.

Fire and Explosion Hazards: Toner is a combustible powder. When dispersed in air, it forms explosive mixtures.

**Section VI - Reactivity Data**

Stability:

Unstable	
Stable	X

Hazardous

Polymerization:

May Occur

Will Not Occur X

Hazardous Decomposition Products: Products of combustion are toxic. Avoid breathing smoke.

Incompatibility (Materials to Avoid): None

**Section VII - Special Protection Information**

Respiratory Protection: None required when used as intended in Xerox equipment.

Eye Protection: None required when used as intended in Xerox equipment.

Protective Gloves: None required when used as intended in Xerox equipment.

Other: For use other than normal customer - operating procedures (such as in bulk toner processing facilities), goggles and respirators may be required. For more information, contact Xerox.

**Section VIII - Special Precautions**

Handling and Storage: None

Conditions to Avoid: None

**Section IX - Spill, Leak, and Disposal Procedures**

For Spills or Leakage: If spilled, sweep up or vacuum.

Waste Disposal Method: No special disposal procedures. Insure conformity with federal, state or local regulations.

**Section X - Transportation Information**

AR200839

DOT Proper Shipping Name: Not Regulated

Hazard Classification: N.A.

ID Number: N.A.

Manufacturer: Xerox Corporation  
 Rochester, New York 14644

Emergency Tel. No. : (716) 422-2177  
 Information Tel. No.: (800) 828-6571

**Section I - Product Identification**

Trade Names/Synonyms: 1040/1045/1048/1050 Toner

Part No. : 6R112, 6R113, 6R128, 6R119

Chemical Name: None

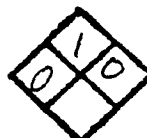
Ingredients

CAS No.

Styrene, Acrylate Copolymer (85-90%)  
 Carbon Black (10-15%)  
 Amorphous Silica (<1%)

25213-39-2  
 1333-86-4  
 7631-86-9

ORIGINAL  
 (Red)



PPE A  
 UN NA

**Section II - Emergency and First Aid**

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Eyes: Flush with water.  
 Skin: Wash with soap and water.  
 Inhalation: Remove from exposure.  
 Ingestion: Dilute stomach contents with several glasses of water.  
 Primary Route of Entry: Inhalation  
 Symptoms of Overexposure: Minimal respiratory tract irritation may occur as with exposure to large amounts of any non-toxic dust.

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Additional Information: See Sections V and VII.  
 Further information on file in Poisindex.

**Section III - Toxicology and Health Information**

*This material has been tested and evaluated by Xerox Corporation. When used as intended, it does not represent a health or safety hazard.*

Oral LD<sub>50</sub>: >16 g/kg (Rats) practically non-toxic.  
 Dermal LD<sub>50</sub>: >2.3 g/kg (Rabbits) practically non-toxic.  
 Inhalation LC<sub>50</sub>: >7.5 mg/l (Rats) practically non-toxic.\*  
 Eye Irritation: (Rabbits) non-irritating  
 Skin Sensitization: (Guinea Pigs) non-sensitizing  
 Skin Irritation: (Rabbits) mildly irritating  
 Human Patch: Non-irritating, non-sensitizing  
 Mutagenicity: No mutagenicity detected in Ames Assays.  
 Carcinogens: None present  
 Aquatic LC<sub>50</sub>: >500 mg/l (Fathead Minnows) non-toxic  
 Additional Information: \*Not tested to the highest dose or concentration.

TLV: 10 mg/m<sup>3</sup> (Total Dust)  
 5 mg/m<sup>3</sup> (Respirable Dust)  
 PEL: 15 mg/m<sup>3</sup> (Total Dust)  
 5mg/m<sup>3</sup> (Respirable Dust)  
 XEL: 5 mg/m<sup>3</sup> (Total Dust)

AR200840

XEL - Xerox Exposure Limit

**Section IV - Physical Data**

Appearance/Odor: Black powder / faint odor  
 Boiling Point: N.A.  
 Solubility in Water: Negligible  
 Evaporation Rate: N.A.  
 Vapor Density (Air = 1): N.A.  
 Volatile N.A. % (Wgt.) N.A. % (Vol.)

Softening Range: 85°C to 100°C  
 Melting Point: N.A.  
 Specific Gravity (H<sub>2</sub>O = 1): 1  
 Vapor Pressure (mm Hg): N.A.  
 pH = N.A.

**Section V - Fire and Explosion Data**

Flash Point (Method Used): N.A.

Flammable LEL: N.A.  
 Limits UEL: N.A.

Extinguishing Media: Water, Foam, Dry chemical

Special Fire Fighting Procedures: Avoid inhalation of smoke.

Fire and Explosion Hazards: Toner is a combustible powder. When dispersed in air, it forms explosive mixtures.

**Section VI - Reactivity Data**

Stability:

Unstable

Stable

X

Hazardous

Polymerization:

May Occur

Will Not Occur

X

Hazardous Decomposition Products: Products of combustion are toxic. Avoid breathing smoke.

Incompatibility (Materials to Avoid): None

**Section VII - Special Protection Information**

Respiratory Protection: None required when used as intended in Xerox equipment.

Eye Protection: None required when used as intended in Xerox equipment.

Protective Gloves: None required when used as intended in Xerox equipment.

Other: For use other than normal customer - operating procedures (such as in bulk toner processing facilities), goggles and respirators may be required. For more information, contact Xerox.

**Section VIII - Special Precautions**

Handling and Storage: None

Conditions to Avoid: None

**Section IX - Spill, Leak, and Disposal Procedures**

For Spills or Leakage: Loose toner can be removed using a vacuum cleaner. Residue can be removed with soap and cold water. After removal of loose toner, garments may be washed or dry cleaned.

Waste Disposal Method: Do not incinerate. No special techniques beyond normal practice. Insure conformity with federal, state or local regulations.

AR200841

**Section X - Transportation Information**

DOT Proper Shipping Name: Not Regulated

Hazard Classification: N.A.

ID Number: N.A.

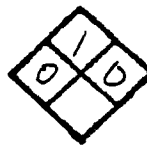
Manufacturer: Xerox Corporation  
 Rochester, New York 14644  
 Emergency Tel. No. : (716) 422-2177  
 Information Tel. No.: (800) 828-6571

**Section I - Product Identification**

Trade Names/Synonyms: 1075/1090/4050 Developer Part No. : 5R300, 5R302, RX: 5R306, 5R307, 5R510

Chemical Name: None

Ingredients	CAS No.
Carrier (95-100%): Steel powder	-----
Toner (<5%): Styrene, Acrylate Copolymer (>90%) Carbon black (5-10%) Quaternary Ammonium Salt (<2%)	25213-39-2 1333-86-4 123-03-5



PPE A  
 UN NA

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**Section II - Emergency and First Aid**

Eyes: Flush with water  
 Skin: Wash with soap and water  
 Inhalation: Remove from exposure  
 Ingestion: Dilute stomach contents with several glasses of water.  
 Primary Route of Entry: Inhalation  
 Symptoms of Overexposure: Minimal respiratory tract irritation may occur as with exposure to large amounts of any non-toxic dust.

Additional Information: See Sections V and VII.  
 Further information on file in Poisindex.

**Section III - Toxicology and Health Information**

*This material has been tested and evaluated by Xerox Corporation. When used as intended, it does not represent a health or safety hazard.*

Oral LD <sub>50</sub> : > 10 g/kg (Rats) practically non-toxic.	TLV: 10 mg/m <sup>3</sup> (Total Dust)
Dermal LD <sub>50</sub> : > 2 g/kg (Rabbits) practically non-toxic.	5 mg/m <sup>3</sup> (Respirable Dust)
Inhalation LC <sub>50</sub> : > 5 mg/l (Rats) practically non-toxic.*	PEL: 15 mg/m <sup>3</sup> (Total Dust)
Eye Irritation: (Rabbits) minimally to mildly irritating	5 mg/m <sup>3</sup> (Respirable Dust)
Skin Sensitization: (Guinea Pigs) non-sensitizing	1XEL: 5 mg/m <sup>3</sup> (Total Dust)
Skin Irritation: 0.34 (Rabbits) mildly irritating	
Human Patch: Non-sensitizing, minimally irritating	
Mutagenicity: No mutagenicity detected in Ames, Mouse Lymphoma, CHO/SCE, Micronucleus, and 3T3 Transformation Assays.	
Carcinogens: None present	
Aquatic LC <sub>50</sub> : > 500 mg/l (Fathead Minnows) non-toxic	

AR200842

Additional Information: \* Not tested to the highest dose or concentration. Subchronic Inhalation (Rats)/(-); Inhalation Teratology/(-); Biodegradation/not readily biodegradable. Test results noted above are based on toxicity data for toner.

1XEL - Xerox Exposure Limit (for Ocular toxicity)



### Section IV - Physical Data

Appearance/Odor: Black, granular / faint odor  
Boiling Point: N.A.  
Solubility in Water: Negligible  
Evaporation Rate: N.A.  
Vapor Density (Air = 1): N.A.  
Volatile N.A. % (Wgt.) N.A. % (Vol.)

Softening Range: 85°C to 100°C  
Melting Point: N.A.  
Specific Gravity (H<sub>2</sub>O = 1): N.A.  
Vapor Pressure (mm Hg): N.A.  
pH = N.A.

### Section V - Fire and Explosion Data

Flash Point (Method Used): N.A.

Flammable Limits LEL: N.A.  
UEL: N.A.

Extinguishing Media: Water, Foam, Dry chemical

Special Fire Fighting Procedures: Avoid inhalation of smoke.

Unusual Fire and Explosion Hazards: Developer is combustible. When dispersed in air, it forms explosive mixtures. By the U.S. Bureau of Mines format, the Explosion Severity = 3.5 and is considered "Strong". The Kst following NFPA #68 procedures is 236 bar-meters/sec.

### Section VI - Reactivity Data

Stability:	Unstable		Hazardous Polymerization:	May Occur	
	Stable	X		Will Not Occur	X

Hazardous Decomposition Products: Products of combustion are toxic. Avoid breathing smoke.

Incompatibility (Materials to Avoid): None

### Section VII - Special Protection Information

Respiratory Protection: None required when used as intended in Xerox equipment.

Eye Protection: None required when used as intended in Xerox equipment.

Protective Gloves: None required when used as intended in Xerox equipment.

Other: For use other than normal customer - operating procedures (such as in bulk toner processing facilities), goggles and respirators may be required. For more information, contact Xerox.

### Section VIII - Special Precautions

Handling and Storage: None

Conditions to Avoid: None

### Section IX - Spill, Leak, and Disposal Procedures

For Spills or Leakage: If spilled, sweep up or vacuum

Waste Disposal Method: No special disposal procedures. Insure conformity with federal, state, or local regulations.

### Section X - Transportation Information

DOT Proper Shipping Name: Not Regulated  
Hazard Classification: N.A.

ID Number: N.A.

AR2008

Manufacturer: Xerox Corporation  
Rochester, New York 14644

Emergency Tel. No.: (716) 422-2177  
Information Tel. No.: (800) 828-6571

**Section I - Product Identification**

Trade Names/Synonyms: 1075/1090/4050 Toner

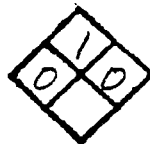
Part No.: 6R58, 6R301, RX: 6R303, 6R306, 6R501

Chemical Name: Thermoplastic powder

Ingredients  
Styrene, Acrylate Copolymer (>90%)  
Carbon black (5-10%)  
Quaternary Ammonium Salt (<2%)

CAS No.  
25213-39-2  
1333-86-4  
123-03-5

ORIGINAL  
(Red)



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PPE A  
UN NA

C. MURAWCZYK

**Section II - Emergency and First Aid**

**Eyes:** Flush with water.  
**Skin:** Wash with soap and water.  
**Inhalation:** Remove from exposure.  
**Ingestion:** Dilute stomach contents with several glasses of water.  
**Primary Route of Entry:** Inhalation  
**Symptoms of Overexposure:** Minimal respiratory tract irritation may occur as with exposure to large amounts of any non-toxic dust.

**Additional Information:** See Sections V and VII.  
Further information on file in Poisindex.

**Section III - Toxicology and Health Information**

*This material has been tested and evaluated by Xerox Corporation. When used as intended, it does not represent a health or safety hazard.*

**Oral LD<sub>50</sub>:** > 10 g/kg (Rats) practically non-toxic.  
**Dermal LD<sub>50</sub>:** > 2 g/kg (Rabbits) practically non-toxic.  
**Inhalation LC<sub>50</sub>:** > 5 mg/l (Rats) practically non-toxic.\*

TLV: Not Published

**Eye Irritation:** (Rabbits) minimally to mildly irritating

PEL: Not Published

**Skin Sensitization:** (Guinea Pigs) non-sensitizing

**Skin Irritation:** 0.34 (Rabbits) mildly irritating

**Human Patch:** Non-sensitizing, minimally irritating

**Mutagenicity:** No mutagenicity detected in Ames, Mouse Lymphoma, CHO/SCE, Micronucleus, and 3T3 Transformation Assays.

<sup>1</sup>XEL: 1 mg/m<sup>3</sup> (Total Dust)

**Carcinogens:** None present

**Aquatic LC<sub>50</sub>:** > 500 mg/l (Fathead Minnows) non-toxic

AR200844

**Additional Information:**\* Not tested to the highest dose or concentration. Subchronic

Inhalation (Rats)/(-); Teratology/(-); Biodegradation/not readily biodegradable

<sup>1</sup>XEL - Xerox Exposure Limit  
(for Ocular toxicity)

### Section IV - Physical Data

Appearance/Odor: Black powder / faint odor  
 Boiling Point: N.A.  
 Solubility in Water: Negligible  
 Evaporation Rate: N.A.  
 Vapor Density (Air = 1): N.A.  
 Volatile N.A. % (Wgt.) N.A. % (Vol.)

Softening Range: 85°C to 100°C  
 Melting Point: N.A.  
 Specific Gravity (H<sub>2</sub>O = 1): ~1  
 Vapor Pressure (mm Hg): N.A.  
 pH = N.A.

### Section V - Fire and Explosion Data

Flash Point (Method Used): N.A.  
 Extinguishing Media: Water, Foam, Dry chemical  
 Special Fire Fighting Procedures: Avoid inhalation of smoke.

Flammable Limits LEL: N.A.  
 UEL: N.A.

Fire and Explosion Hazards: Toner is combustible powder. When dispersed in air, it forms explosive mixtures. By the U.S. Bureau of Mines format, the Explosion Severity = 3.5 and is considered "Strong". The Kst following NFPA #68 procedures is 236 bar-meters/sec.

### Section VI - Reactivity Data

Stability:	Unstable		Hazardous Polymerization:	May Occur	
	Stable	X		Will Not Occur	X

Hazardous Decomposition Products: Products of combustion are toxic. Avoid breathing smoke.

Incompatibility (Materials to Avoid): None

### Section VII - Special Protection Information

Respiratory Protection: None required when used as intended in Xerox equipment.  
 Eye Protection: None required when used as intended in Xerox equipment.  
 Protective Gloves: None required when used as intended in Xerox equipment.  
 Other: For use other than normal customer - operating procedures (such as in bulk toner processing facilities), goggles and respirators may be required. For more information, contact Xerox.

### Section VIII - Special Precautions

Handling and Storage: None

Conditions to Avoid: None

### Section IX - Spill, Leak, and Disposal Procedures

For Spills or Leakage: Loose toner can be removed using a vacuum cleaner. Residue can be removed with soap and cold water. After removal of loose toner, garments may be washed or dry-cleaned.

Waste Disposal Method: Do not incinerate. No special techniques beyond normal practice. Insure conformity with federal, state, or local regulations.

AR200845

### Section X - Transportation Information

DOT Proper Shipping Name: Not Regulated

Hazard Classification: N.A.

ID Number: N.A.

Manufacturer: Xerox Corporation  
Rochester, New York 14644

Emergency Tel. No. : (716) 422-2177  
Information Tel. No.: (800) 828-6571

**Section I - Product Identification**

Trade Names/Synonyms: Formula A Cleaner

Part No. : 43P48, 43P49, 43P50,  
43P51, included in Kits  
8R1169 and 8R582

Chemical Name: None

Ingredients

CAS No.

Water (75-80%)  
Isopropanol (5-10%)  
1-Butoxy - 2-Propanol (5-10%)  
Linear alcohol surfactant; C<sub>11</sub>-C<sub>15</sub> (<5%)  
Sodium Xylenesulfonate (<5%)  
Tetrapotassium Pyrophosphate (<1%)

-----  
67-63-0  
5131-66-8  
68131-40-8  
1300-72-7  
7320-34-5

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**Section II - Emergency and First Aid**

Eyes: Flush thoroughly with water.

Skin: Wash thoroughly with soap and water.

Inhalation: Remove from exposure.

Ingestion: Dilute stomach contents with several glasses of water.

Primary Route of Entry: Inhalation

Symptoms of Overexposure: Central nervous system depression, cardiovascular and respiratory depression and gastrointestinal irritation.

Additional Information: Call physician.  
Further information on file in Poisindex.

**Section III - Toxicology and Health Information**

*This material has been tested and evaluated by Xerox Corporation. When used as intended, it does not represent a health or safety hazard.*

Oral LD<sub>50</sub>: >5 g/kg (Rats) practically non-toxic

TLV: None established

Dermal LD<sub>50</sub>: >10.2 g/kg (Rabbits) practically non-toxic

Inhalation LC<sub>50</sub>: >200 mg/l practically non-toxic

PEL: None established

Eye Irritation: (Rabbits) mildly irritating

Skin Sensitization: (Guinea Pigs) non-sensitizing

Skin Irritation: (Rabbits) non-irritating

Human Patch: None available

Mutagenicity: None available

Aquatic LC<sub>50</sub>: None available



PPE 3  
UN 1142

AR200846

Additional Information: None

**Section IV - Physical Data**

Appearance/Odor: Clear liquid/slight odor  
 Boiling Point: 89-99°C  
 Solubility in Water: Completely  
 Evaporation Rate: 2.9, n-butylacetate = 1  
 Vapor Density (Air = 1): 2.07  
 Volatile 96.4% (Wgt.) - % (Vol.)

Softening Range: N.A.  
 Melting Point: N.A.  
 Specific Gravity (H<sub>2</sub>O = 1): ~1  
 Vapor Pressure (mm Hg): 15 @ 20°C  
 pH = 9.6

**Section V - Fire and Explosion Data**

Flash Point (Method Used): 95°C (T.C.C.)

Flammable \*LEL: 2%  
 Limits UEL: 12%

Extinguishing Media: Water, Foam, Dry Chemical, CO<sub>2</sub>

\*Value for Isopropanol at 760mm. and 82°C.

Special Fire Fighting Procedures: Use water spray to cool containers.

Fire and Explosion Hazards: A moderate explosion hazard occurs when this material is exposed to heat or flames.

**Section VI - Reactivity Data**

Stability: 

Unstable	
Stable	X

Hazardous Polymerization: 

May Occur	
Will Not Occur	X

Hazardous Decomposition Products: None

Incompatibility (Materials to Avoid): None

**Section VII - Special Protection Information**

Respiratory Protection: None required when used as intended on Xerox equipment.

Eye Protection: Wear safety glasses with side shields

Protective Gloves: Wear rubber or vinyl coated gloves.

Other: None required when used as intended on Xerox equipment.

**Section VIII - Special Precautions**

Handling and Storage: Do not store near heat, flames, or sparks.  
 This material is similar to soap and may be irritating to eyes.

Conditions to Avoid: None

**Section IX - Spill, Leak, and Disposal Procedures**

For Spills or Leakage: No special disposal techniques. (Similar to washroom soaps.)

Waste Disposal Method: Flush down drain with water.

**Section X - Transportation Information**

DOT Proper Shipping Name: Not Regulated

Hazard Classification: N.A.

ID Number: N.A.

AR200847



42  
B  
1993



2C  
JIM  
11/25/85  
Jimmelman Ave.  
NOTICE: JUDGEMENT BASED ON INDIRECT TEST DATA.

**AEROSOL MATERIAL SAFETY DATA SHEET**  
(ESSENTIALLY SIMILAR TO FORM OSHA-20)

ORIGINAL  
(Red)

EMERGENCY PHONE (305) 974-5440

**CHEMICAL PACKAGING CORPORATION**  
P.O. BOX 9947, FT. LAUDERDALE, FL 33310

**SWAT**

C95 Wasp & Hornet Spray

7347

QUICK PRODUCT IDENTIFIER (IN PLANT COMMON NAME)

I - IDENTIFICATION	
SIGNATURE OF PERSON RESPONSIBLE FOR PREPARATION	DATE PREPARED
<i>3/1 Smith</i>	<i>11/25/85</i>
FORMULA	TRADE NAME
Proprietary Mixture	<b>SWAT</b> Wasp & Hornet Spray
	PACKAGE TYPE
	Aerosol Container

II - HAZARDOUS INGREDIENTS

PRINCIPLE HAZARDOUS COMPONENT(S) (CHEMICAL NAME(S))	CAS#	APPROX. % (wt)	TLV (ppm)
+(5-Benzyl-3-furyl) methyl 2,2-dimethyl-3 (2-methylpropenyl) cyclopropanecarboxylate Related compounds Aromatic petroleum hydrocarbons Petroleum distillate 1,1,1-Trichloroethane	10453-86-8	.150	
	64742-88-7	.020	
	71-55-6	.274	
		1.556	85
			350
THIS PRODUCT CONTAINS NO KNOWN OR SUSPECTED CARCINOGENS.			
PROPELLANT	Carbon dioxide	124-38-9	

III - PHYSICAL DATA

BOILING POINT (°F) OF CONCENTRATE	ND	SPECIFIC GRAVITY (H <sub>2</sub> O = 1) @ 75°F OF CONCENTRATE	1.164
VAPOR PRESSURE (psig) IN CAN @ 75°F	90	% VOLATILE BY VOLUME IN CAN	85
VAPOR DENSITY	ND	FLASH POINT OF CONCENTRATE	None up to 150°F Tag open cup
SOLUBILITY IN WATER OF CONCENTRATE	Slight	APPEARANCE AND ODOR OF SPRAY	Colorless to light yellow liquid with typical odor

IV - FIRE & EXPLOSION HAZARD DATA

FLAMMABILITY as per CPSC FLAME EXTENSION TEST	Spray non-flammable	FLAMMABLE LIMITS	Lower N/A Upper N/A
EXTINGUISHING MEDIA	Foam, Dry chemical, CO <sub>2</sub>		
SPECIAL FIRE FIGHTING PROCEDURES	KEEP CONTAINERS COOL. USE EQUIPMENT OR SHIELDING REQUIRED TO PROTECT PERSONNEL AGAINST BURSTING, RUPTURING OR VENTING CONTAINERS.		
UNUSUAL FIRE & EXPLOSION HAZARDS	AT ELEVATED TEMPERATURES (ABOVE 120°F) CONTAINERS MAY VENT, RUPTURE OR BURST.		

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APR 0 9 1987

V - REACTIVITY DATA

CHEMICAL STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	XX	
			C. MURAWCZYK
Do not expose to temp. above 120°F			
INCOMPATIBILITY (Materials to avoid) Strong alkalies, oxidizers, aluminum and other reactive metals			
HAZARDOUS DECOMPOSITION PRODUCTS Hydrogen chloride, phosgene (small amounts)			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	XX	
			None

AR200849

**AEROSOL PRODUCTS PRESENT A LIMITED HAZARD DURING STORAGE OR USE IF LABEL PRECAUTIONS ARE FOLLOWED. INTENTIONAL MIS-USE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS CAN BE HARMFUL, OR FATAL. PRESSURIZED CONTAINERS MUST NOT BE EXPOSED TO TEMPERATURES ABOVE 120°F AND SPRAY SHOULD NOT BE DIRECTED TOWARD FACE OR EYES, OPEN FLAME OR OTHER SOURCE OF IGNITION.**

**VI— HEALTH HAZARD DATA**

OSHA PERMISSIBLE EXPOSURE LIMIT

N.D.

THRESHOLD LIMIT VALUE

See Section II

**EFFECTS OF OVER EXPOSURE**

**INHALATION:**

Excessive inhalation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headaches and possible unconsciousness.

**SKIN CONTACT/ABSORPTION:**

Prolonged or repeated contact can cause moderate irritation, defatting and dermatitis.

**INGESTION:**

Can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration of material into the lungs can cause chemical pneumonitis.

**EYES:**

Can cause severe irritation, redness, tearing and blurred vision.

**EMERGENCY AND FIRST AID PROCEDURES**

**EYES AND SKIN** Flush with water, lifting upper and lower lids. Get medical attention. Wash exposed area with soap and water.

**INHALATION** Remove to fresh air. If breathing difficult, administer oxygen. If breathing has stopped give artificial respiration. Get medical attention.

**INGESTION** Do not induce vomiting. Get medical attention. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis.

**VII — SPILL OR LEAK PROCEDURES**

**STEPS TO BE TAKEN IN CASE CONTAINER IS PUNCTURED AND MATERIAL IS RELEASED.**

Clean up area by mopping or with absorbent materials and place in closed containers for disposal. Consult Federal, State or Local disposal authorities for approved disposal procedures.

**WASTE DISPOSAL METHOD**

WHEN USED PROPERLY AEROSOL PRODUCTS DO NOT GENERATE HAZARDOUS WASTE. EMPTY DE-PRESSURIZED CONTAINERS CAN NOT BE REUSED AND SHOULD BE WRAPPED AND PUT IN TRASH COLLECTION. CANS WHICH ARE PRESSURIZED OR CONTAIN LIQUID MUST BE DISPOSED OF IN A PERMITTED WASTE MANAGEMENT FACILITY. CONSULT FEDERAL, STATE AND LOCAL DISPOSAL AUTHORITIES FOR APPROVED PROCEDURES.

**VII — SPECIAL PROTECTION INFORMATION**

**SPECIFIC PERSONAL PROTECTIVE EQUIPMENT**

**RESPIRATORY** General ventilation adequate.

**EYE** Chemical splash goggles in compliance with OSHA regulations.

**SKIN** Wear resistant gloves such as: neoprene, nitrile rubber or polyvinyl chloride.

**OTHER** Do not eat, drink or smoke in work area, wash hands before eating.

**VENTILATION REQUIREMENTS** Provide sufficient mechanical (general) and/or local exhaust ventilation to maintain exposure below TLV (S)

**IX — SPECIAL PRECAUTIONS**

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING**

Do not store at temperatures above 120 F.

**SPECIAL PRECAUTIONARY STATEMENTS**

PLEASE READ AND FOLLOW THE DIRECTIONS ON THE PRODUCT LABEL. THEY ARE YOUR BEST GUIDE TO USING THIS PRODUCT IN THE MOST EFFECTIVE WAY, AND GIVE THE NECESSARY SAFETY PRECAUTIONS TO PROTECT YOUR HEALTH.

AR200850

NOTICE: WE BELIEVE THAT THE INFORMATION CONTAINED ON THIS MATERIAL SAFETY DATA SHEET IS ACCURATE. THE SUGGESTED PROCEDURES ARE BASED ON EXPERIENCE AS OF THE DATE OF PUBLICATION. THEY ARE NOT NECESSARILY ALL-INCLUSIVE NOR FULLY ADEQUATE IN EVERY CIRCUMSTANCE. ALSO, THE SUGGESTIONS SHOULD NOT BE CONFUSED WITH NOR FOLLOWED IN VIOLATION OF APPLICABLE LAWS, REGULATIONS, RULES OR INSURANCE REQUIREMENTS. NO WARRANTY, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE IS MADE.

ORIGINAL  
Part



# MATERIAL SAFETY DATA SHEET

*Drain Opener*

*Zimmerman Inc.*



**Diamond Shamrock  
Chemicals Company**

MSDS NUMBER: M4806

MSDS DATE: 05-15-86

PRODUCT NAME: 50% CAUSTIC SODA-DB

**Z's INDUSTRIAL DRAIN OPENER**  
~~INDUSTRIAL DRAIN OPENER~~ ORIGINAL (200)

24 HOUR EMERGENCY PHONE: (214) 922-2700

## I. PRODUCT IDENTIFICATION

3 HEALTH HAZARD, 0 FIRE HAZARD, & 1 REACTIVITY rating based on NIOSH "Identification System for Occupationally Hazardous Materials" (1974)

MANUFACTURER'S NAME AND ADDRESS: Diamond Shamrock Chemicals Company, Chlor-Alkali Division, 351 Phelps Court, P.O. Box 152300, Irving, Texas 75015-2300

CHEMICAL NAME: Sodium Hydroxide CAS NUMBER: 1310-73-2

SYNONYMS/Common Names: Sodium Hydroxide; NaOH

CHEMICAL FORMULA: NaOH

DOT PROPER SHIPPING NAME: Caustic Soda, Liquid

DOT HAZARD CLASS: Corrosive Material

DOT I.D. NUMBER: UN1824

HAZARDOUS SUBSTANCE: RQ1000



PPE C  
UN 1824

## II. HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	HAZARD DATA	CAS NUMBER	%
Sodium Hydroxide	PEL = 2 mg/m <sup>3</sup> TLV = 2 mg/m <sup>3</sup> Ceiling	1310-73-2	50
Water		7732-18-5	50

See Section V

This material is listed in the TSCA Inventory. Not listed as carcinogenic by IARC, NTP, OSHA, ACGIH.

## III. PHYSICAL DATA

BOILING POINT @ 760 mm Hg: 143°C VAPOR DENSITY (Air=1): N/A

FREEZING POINT: 12.1°C (54°F) % VOLATILES BY VOL.: <50%

VAPOR PRESSURE: 13 mm Hg @ 60°C

SPECIFIC GRAVITY (H<sub>2</sub>O=1): 1.54 @ 15.6°C

SOLUBILITY IN H<sub>2</sub>O % BY WT: Completely Soluble

APPEARANCE AND ODOR: Clear with no odor

pH: 7.5% solution has pH 14.0

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C. MURAWCZYK

CAS = Chemical Abstract Service Number  
PEL = OSHA Permissible Exposure Limit  
TLV = TLV, ACGIH Threshold Limit Value, Current

N/A = No relevant information found or not available  
NA = Not applicable

Diamond Shamrock Chemicals Company - A subsidiary of Diamond Shamrock Corporation

AR200851

This Material Safety Data Sheet was prepared in accordance with 29 CFR 1910.1200. All information, recommendations and suggestions appearing herein concerning our product are based upon tests and data believed to be reliable. However, it is the user's responsibility to determine the safety, toxicity and suitability for his own use of the product described herein. Since the actual use by others is beyond our control, no guarantee expressed or implied is made by Diamond Shamrock as to the effects of such use the results to be obtained or the safety and toxicity of the product nor does Diamond Shamrock assume any liability arising out of use by others of the product referred to herein. Nor is the information herein to be construed as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.

#### IV. FIRE AND EXPLOSION DATA

FLASH POINT: NA AUTOIGNITION TEMPERATURE: Nonflammable

FLAMMABLE LIMITS IN AIR, % BY VOLUME- UPPER: Nonflammable  
LOWER: Nonflammable

##### EXTINGUISHING MEDIA:

This product is not combustible. Water spray, foam, carbon dioxide or dry chemicals may be used where this product is stored.

##### SPECIAL FIRE FIGHTING PROCEDURES:

Protective clothing and pressure-demand, self-contained breathing apparatus should be worn by firefighters in areas where product is stored.

##### UNUSUAL FIRE AND EXPLOSION HAZARD:

None. See Reactivity (Section VI).

#### V. HEALTH HAZARD INFORMATION

##### HEALTH HAZARD DATA:

Caustic Soda is a corrosive material.

Sodium Hydroxide: Acute Oral LD<sub>50</sub> = 140-340 mg/kg (rat)  
Acute Dermal LD<sub>50</sub> = 1.35 gm/kg (rabbit)

##### ROUTES OF EXPOSURE

##### INHALATION:

Airborne concentrations of dust, mist, or spray of caustic soda may cause damage to the upper respiratory tract and even to the lung tissue proper which could produce chemical pneumonia, depending upon severity of exposure.

##### SKIN CONTACT:

This product is destructive to tissues contacted and produces severe burns.

##### SKIN ABSORPTION:

See Skin Contact above.

##### EYE CONTACT:

This product is destructive to eye tissues on contact. Will cause severe burns that result in damage to the eyes and even blindness.

##### INGESTION:

This product, if swallowed, can cause severe burns and complete tissue perforation of mucous membranes of the mouth, throat, esophagus and stomach.

##### EFFECTS OF OVEREXPOSURE

##### ACUTE:

Corrosive to all body tissues with which it comes in contact.

##### CHRONIC:

The chronic local effect may consist of multiple areas of superficial destruction of the skin or of primary irritant dermatitis. Similarly, inhalation of dust, spray, or mist may result in varying degrees of irritation or damage to the respiratory tract tissues and an increased susceptibility to respiratory illness.

##### EMERGENCY AND FIRST AID PROCEDURES

##### EYES:

OBJECT IS TO FLUSH MATERIAL OUT IMMEDIATELY THEN SEEK MEDICAL ATTENTION. IMMEDIATELY flush eyes with large amounts of water for at least 15 minutes, holding lids apart to ensure flushing of the entire surface. Washing eyes within several seconds is essential to achieve maximum effectiveness. Seek medical attention immediately.

##### SKIN:

Wash contaminated areas with plenty of water for 15 minutes. Remove contaminated clothing and footwear and wash clothing before reuse. Discard footwear which cannot be decontaminated. Seek medical attention immediately.

## V. HEALTH HAZARD INFORMATION

...continued

### INHALATION:

Get person out of contaminated area to fresh air. If breathing has stopped, resuscitate and administer oxygen if readily available. Seek medical attention immediately.

### INGESTION:

NEVER give anything by mouth to an unconscious person. If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. If available, give several glasses of milk. If vomiting occurs spontaneously, keep airway clear. Seek medical attention immediately.

## VI. REACTIVITY DATA

### CONDITIONS CONTRIBUTING TO INSTABILITY:

Under normal conditions, this material is stable.

### INCOMPATIBILITY:

See Mixing and Handling (Section IX). Avoid direct contact with water. This product may be added slowly to water or acids with dilution and agitation to avoid a violent reaction. When handling this product, avoid contact with aluminum, tin, zinc, and alloys containing these metals. Do not mix with strong acids without dilution and agitation to prevent violent or explosive reaction. Avoid contact with leather or wool.

### HAZARDOUS DECOMPOSITION PRODUCTS:

None.

### CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION:

Material is not known to polymerize.

## VII. ENVIRONMENTAL PROCEDURES

### STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Leaks should be stopped. Spills should be contained and cleaned up immediately. Spills should be removed by using a vacuum truck. Neutralize remaining traces of material with any dilute inorganic acid such as hydrochloric, sulfuric, nitric, phosphoric, and acetic acid. The spill area should then be flushed with water followed by liberal covering of sodium bicarbonate. All clean-up material should be removed and placed in approved containers, labeled and stored in a safe place to await proper treatment or disposal. Spills on areas other than pavement, e.g., dirt or sand, may be handled by removing the affected soils and placing in approved containers. Persons performing clean-up work should wear adequate personal protective equipment and clothing.

Caution: Caustic Soda may react violently with acids and water.

### WASTE DISPOSAL METHOD:

The materials resulting from clean-up operations may be hazardous wastes and, therefore, subject to specific regulations. Package, store, transport, and dispose of all clean-up materials and any contaminated equipment in accordance with all applicable federal, state, and local health and environmental regulations. Shipments of waste materials may be subject to manifesting requirements per applicable regulations. Appropriate disposal will depend on the nature of each waste material and should be performed by competent and properly permitted contractors. Ensure that all responsible federal, state, and local agencies receive proper notification of spill and disposal methods.

AR200853

## VIII. INDUSTRIAL HYGIENE CONTROL MEASURES

### VENTILATION REQUIREMENTS:

Use adequate local exhaust ventilation where mist, sprays or resuspended dust may be generated. NOTE: Where carbon monoxide or other reaction products may be generated, special ventilation may be required.

### SPECIFIC PERSONAL PROTECTIVE EQUIPMENT

#### RESPIRATORY:

Respiration protection is not required under normal use. Use NIOSH/MSHA approved respirator where mists, sprays or resuspended dust may be generated. Follow manufacturer's recommendations.

#### EYE:

Face shield and goggles or chemical goggles should be worn.

#### GLOVES:

Gloves should be worn. Gloves may be decontaminated by washing with mild soap and water. Natural and butyl rubber have been suggested.

#### OTHER CLOTHING AND EQUIPMENT:

Protective clothing to minimize skin contact. Chemically resistant safety shoes. Wash contaminated clothing with soap and water and dry before reuse. Showers and eyewash facilities should be accessible.

### MONITORING EXPOSURE

#### BIOLOGICAL:

N/A

#### PERSONAL/AREA:

Use NIOSH Analytical Method No. 7401.

ORIGINAL  
(Red)

## IX. SPECIAL PRECAUTIONS

SIGNAL WORD: DANGER!

### STATEMENT OF HAZARDS:

CAUSES SEVERE BURNS TO SKIN AND EYES  
CONTACT WITH EYES CAN CAUSE PERMANENT EYE DAMAGE  
INHALATION OF DUST, MIST OR SPRAY CAN CAUSE SEVERE LUNG DAMAGE  
CAN REACT VIOLENTLY WITH WATER, ACIDS AND OTHER SUBSTANCES

### PRECAUTIONARY STATEMENTS:

Do not get into eyes, on skin, on clothing.  
Avoid breathing dust, mists, or spray.  
Do not take internally.  
Use with adequate ventilation and employ respiratory protection when exposure to dust, mist or spray is possible.  
When handling, wear chemical splash goggles, face shield, rubber gloves and protective clothing.  
Wash thoroughly after handling or contact - exposure can cause burns which are not immediately painful or visible.  
Keep container closed.  
Product can react violently with water, acids, and other substances - read Special Mixing and Handling Instructions below carefully before using.  
Product is corrosive to tin, aluminum, zinc and alloys containing these metals, and will react violently with these metals in powder form.  
Hazardous carbon monoxide gas can form upon contact with food and beverage products in enclosed spaces and can cause death. Follow appropriate tank entry procedures (ANSI Z117.1-1977).

AR200854

PRODUCT NAME: 50% CAUSTIC SODA-DB

## IX. SPECIAL PRECAUTIONS

...continued

### FIRST AID:

#### IN CASE OF CONTACT:

##### For eyes:

Immediately flush with plenty of water for at least 15 minutes, holding eyelids apart to ensure flushing of the entire eye surface. Washing eyes within several seconds is essential to achieve maximum effectiveness. Seek medical attention immediately.

##### For skin:

Immediately wash with plenty of water for 15 minutes. Remove contaminated clothing and footwear. Wash clothing before reuse and discard footwear which cannot be decontaminated. Seek medical attention immediately.

#### IF INHALED:

Remove person out of contaminated area to fresh air. If breathing has stopped, artificial respiration should be started. Oxygen may be administered, if available. Seek medical attention immediately.

#### IF SWALLOWED:

Do not induce vomiting. Give large quantities of water. If available, give several glasses of milk. Never give anything by mouth to an unconscious person. Seek medical attention immediately.

#### IN CASE OF SPILL OR LEAK:

Leaks should be stopped. Spills, after containment, should be shoveled up or removed by vacuum truck (if liquid) to chemical waste area. Neutralize residue with dilute acid, flush spill area with water followed by liberal covering of sodium bicarbonate. Dispose of wash water and spill by-products according to federal, state, and local regulations.

#### SPECIAL MIXING AND HANDLING INSTRUCTIONS:

Considerable heat is generated when product is mixed with water. Therefore, when making solutions always carefully follow these steps:

ALWAYS wear ALL protective clothing described above. Never add water to product. ALWAYS add product - with constant stirring - slowly to surface of lukewarm (80-100°F) water, to assure product is being completely dissolved as it is added.

If product is added too rapidly, or without stirring, and becomes concentrated at bottom of mixing vessel, excessive heat may be generated, resulting in DANGEROUS boiling and spattering, and a possible IMMEDIATE AND VIOLENT ERUPTION of highly caustic solution.

Note: 50 pounds of product dissolved in 30 gallons of 90°F water will raise temperature of resulting solution to approximately 180°F. Never add more product than can be absorbed by solution while maintaining temperature below 200°F (@ sea level) to prevent boiling and spattering.

Product can react EXPLOSIVELY with acids, aldehydes, and many other organic chemicals - when mixing product with solutions containing such chemicals, follow all of above mixing instructions, and add product very gradually, while stirring constantly.

ALWAYS empty and clean containers of all residues before adding product, to avoid possible EXPLOSIVE reaction between product and unknown residue.

Returnable containers should be shipped in accordance with supplier's recommendations. Return shipments should comply with all federal, state, and DOT regulations. All residual caustic soda should be removed from containers prior to disposal.

More information on the hazards and handling of caustic soda appear in Diamond Shamrock Corporation's Material Safety Data Sheet and Caustic Soda Handbook EC-LDC-1d.

#### DISPOSAL:

The materials resulting from clean-up operations may be hazardous wastes and, therefore, subject to specific regulations. Package, store, transport, and dispose of all clean-up materials and any contaminated equipment in accordance with all applicable federal, state, and local health environmental regulations. Shipments of waste materials may be subject to manifesting requirements per applicable regulations. Appropriate disposal will depend on the nature of each waste material and should be performed by competent and properly permitted contractors. Ensure that all responsible federal, state, and local agencies receive proper notification of disposal.

INDUSTRIAL USE ONLY

LABEL 051586M4806

ORIGINAL  
(Red)

APR 20 0855

# MATERIAL SAFETY DATA SHEET



PRODUCT NAME <b>Zinc-It (Aerosol) #2018</b>	# MSDS002081 PPE <u>B</u>
MANUFACTURED BY: <b>CRC CHEMICALS</b>	Phone (215) 674-4300 U.S. <u>1950</u>
885 LOUIS DRIVE, WARMINSTER, PA. 18974	

1. INGREDIENTS	CAS #	ACGIH TLV	OSHA PEL	Other Limits	%
Zinc Dust	7440-66-6	NA	NA		27.5
Epoxy Ester Resin	NA	NA			2.5
Xylene	1330-20-7	100	100		7.5
Toluene	108-88-3	100	200		4.0
Methylene Chloride	75-09-2	100	500		32.0
Methyl Ethyl Ketone	78-93-3	200	200		6.5
*Isobutane	75-28-5	NA		800	10
*Propane	74-98-6	NA	1000		10

OHIO  
RENT

\*The isobutane and propane function as a propellant for this product.

## 2. PHYSICAL DATA (Without propellant)

Specific Gravity <b>1.522</b>	Vapor Pressure <b>NA</b>	% Volatile <b>70</b>
Boiling Point <b>104°F Initial</b>	Evaporation Rate <b>Dries in 20-30 minutes</b>	
Freezing Point <b>NA</b>	Vapor Density <b>Heavier than air</b>	
Appearance and Odor <b>Gray, viscous liquid - solvent odor</b>		
Solubility <b>Soluble in most organic solvents</b>		

## 3. FIRE AND EXPLOSION DATA

Flashpoint <b>&lt;20°F</b> Method <b>TCC</b>	Flammable Limits <b>NA</b>
Extinguishing Media <b>CO<sub>2</sub>, Foam, Dry Chemical</b>	LEL <b></b> UEL <b></b>
Unusual Hazards <b>Material reacts with water - Aerosol cans may explode if heated above 130°F.</b>	

## 4. REACTIVITY AND STABILITY

Stability <b>Stable</b>
Hazardous decomposition products <b>Thermal (Hydrogen chloride, chlorine, possible phosgene)</b>
Materials to avoid <b>Water, acids, strong acids</b>

## 5. PROTECTION INFORMATION

Ventilation <b>Mechanical required if sprayed in a confined area.</b>
Respiratory <b>Self contained breathing apparatus if vapors exceed 2000856</b>
Gloves <b>Solvent resistant</b> Eye & Face <b>Safety goggles.</b>
Other Protective Equipment <b>Usually not required for aerosol use.</b>

6. HEALTH HAZARD DATA

Primary Routes of Entry Inhalation and Skin

Signs and Symptoms of Exposure

1 Acute Overexposure Inhalation - Headaches, dizziness, nausea and anesthesia.  
Eyes - Will cause eye irritation. Skin - Will cause drying and irritation of skin.

2. Chronic Overexposure May cause contact dermatitis - Could have effect on liver and kidney.

Medical Conditions Generally Aggravated by Exposure Breathing difficulties

Chemical Listed as Carcinogen or Potential Carcinogen	National Toxicology Program	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	IARC Monographs	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	OSHA	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
---	-----------------------------	--	-----------------	--	------	--

Emergency and First Aid Procedures (If symptoms persist, call a doctor)

- 1. Inhalation Remove to fresh air - apply artificial respiration if necessary.
- 2. Eyes Flush with water for at least 15 minutes.
- 3. Skin Wash with soap and water - Use skin cream.
- 4. Ingestion Do not induce vomiting - Call a physician.

7. SPILL OR LEAK PROCEDURES

Precautions to be taken in Handling and Storage Store in a cool dry place.

Steps to be taken in case Materials is released or spilled Not normally a problem with aerosols - Ventilate and absorb liquid - Remove sources of ignition.

Waste Disposal Partially used or filled aerosols are Hazardous Waste if discarded - Dispose of in conformance to Federal, State & Local regulations.

8. SPECIAL PRECAUTIONS AND USE DIRECTIONS

Aerosol containers may explode if exposed to temperatures in excess of 130°F. Due to the high density of the metallic zinc, the aerosol must be thoroughly agitated before use.

AR200857

PREPARED BY: A. P. Reed

ORIGINAL DATE OR DATE OF REVISION Nov. 1985



Products Company, Inc.

GENERAL INFORMATION

RECEIVED

SEP 2 1986

ORIGINAL  
(Red)

C. MURAWCZYK

MATERIAL SAFETY DATA SHEET

INFORMATION TO BE PROVIDED <sup>(1) (2)</sup>

- 1) The identity that is used on the container label;
- 2) The chemical and common name of all ingredients having known health hazards present in concentrations greater than 1%, and for carcinogens, if present at 0.1% or more;
- 3) The physical and chemical characteristics of the hazardous components;
- 4) The physical and health hazards including signs and symptoms of exposure and prior and/or existing contraindicating medical conditions;
- 5) The primary routes of entry;
- 6) Any known exposure limits (OSHA PELs or ACGIH TLVs);
- 7) Whether the hazardous chemical is listed in the NTP *Annual Report on Carcinogens* or is a potential carcinogen according to IARC or OSHA;
- 8) The precautions for safe handling and use, and procedures for spill/leak cleanup;
- 9) Control measures;
- 10) The emergency first aid procedures;
- 11) The date of preparation; and
- 12) The name, address, and telephone number of the company or the responsible employee distributing the MSDS.

TRADE SECRETS (Also see Section i — Federal Register Vol. 48 No. 228 Nov. 25, 1983  
Rules & Regulations)

OSHA has given special consideration to chemical information that the chemical manufacturer or distributor considers to be a trade secret [29 CFR 1910.1200(i)]. Products for which trade secrecy has been claimed must be accompanied by a material safety data sheet. The manufacturer also must specify on the MSDS that the chemical's identity is a trade secret.

In certain circumstances the user may need to know the specific chemical identity of the substance in order to protect the health of its workers. The OSHA procedures for obtaining this information are designed to balance the need-to-know for health protection with the economic value of maintaining the trade secret. If adequate health protection can be achieved only by knowledge of a chemical name, then procedures can be implemented to release the name. In no case can the chemical manufacturer or distributor be forced to disclose a trade secret revealing the chemical process or the percentage composition of the product.

When the specific name of a chemical is desired for protection of worker health in a non-emergency circumstance, such as the desire to monitor the worker or the workplace for specific chemicals, the health officer must request in writing the chemical name and state the specific reasons as to why the information on the material safety data sheet is not sufficient. Proof must be provided that the chemical identity is needed. Finally, a statement guaranteeing confidentiality is necessary but no penalty bond need be posted.

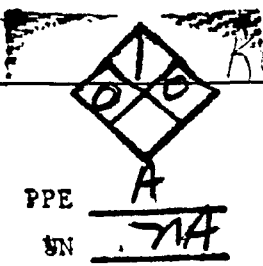
After receipt of this request, the chemical manufacturer has 30 days in which to reply. If the manufacturer still wishes to claim confidentiality, it must prove that the chemical identity is indeed an important trade secret. If the parties cannot reach an agreement, OSHA will arbitrate.

If an emergency, the procedures for obtaining the chemical name are different than in a non-emergency. A health officer (e.g., a physician or industrial hygienist) for the employer may contact the chemical manufacturer and be told the name of the specific chemical. The chemical manufacturer may not withhold the information requested at the time of the emergency, although the manufacturer may request a follow-up written statement of need and a promise of confidentiality.

(1) American Chemical Society, Copyright April 1985.  
(2) See Trade Secret Section for Exclusions

AR200858





KONICA ROYAL COPIERS

U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

Form Approved  
OMB No. 44-R1387

PPE  
A  
7A

# MATERIAL SAFETY DATA SHEET

ORIGINAL  
(Recd)

Required under USDL Safety and Health Regulations for Ship Repairing,  
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

## SECTION I

MANUFACTURER'S NAME KONISHIROKU PHOTO INDUSTRIES, CO., LTD.		EMERGENCY TELEPHONE NO. 0426-42-0161
ADDRESS (Number, Street, City, State, and ZIP Code) 2970 Ishikawa-cho, Hachioji-shi, Tokyo, 192, Japan		
CHEMICAL NAME AND SYNONYMS	TRADE NAME AND SYNONYMS 3302 Toner, 973-712	
CHEMICAL FAMILY	FORMULA	

## SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE	n.a.		METALLIC COATINGS	n.a.	
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)
n.a.					

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## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	n.a.	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	1.1
VAPOR PRESSURE (mm Hg.)	n.a.	PERCENT VOLATILE BY VOLUME (%)	n.a.
VAPOR DENSITY (AIR=1)	n.a.	EVAPORATION RATE (_____ =1)	n.a.
SOLUBILITY IN WATER	Negligible		
APPEARANCE AND ODOR	Black powder and odorless		

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	n.a.	FLAMMABLE LIMITS	Lim	Uet
EXTINGUISHING MEDIA	Water, dry chemical and carbon dioxide			
SPECIAL FIRE FIGHTING PROCEDURES	None.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None and non-explosive			

AR200859

SECTION V - HEALTH HAZARD DATA	
THRESHOLD LIMIT VALUE	n.a.
EFFECTS OF OVEREXPOSURE	Usual discomfort of inhalation in heavy dust conditions.
EMERGENCY AND FIRST AID PROCEDURES	
None specific, normal washing with soap and water.	

ORIGINAL  
(Red)

SECTION VI - REACTIVITY DATA			
STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	XX	
INCOMPATIBILITY (Materials to avoid)			
None.			
HAZARDOUS DECOMPOSITION PRODUCTS			
Carbon monoxide and carbon dioxide when thermal decomposing			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES	
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED	
Can be handled as dry powder; wipe-out or vacuum clean.	
WASTE DISPOSAL METHOD	
Deposit in sanitary landfill in accordance with local, state and federal regulations	

SECTION VIII - SPECIAL PROTECTION INFORMATION			
RESPIRATORY PROTECTION (Specify type)			
None in normal handling			
VENTILATION	LOCAL EXHAUST	Unnecessary	SPECIAL None.
	MECHANICAL (General)	Unnecessary	OTHER None.
PROTECTIVE GLOVES		Unnecessary	EYE PROTECTION Unnecessary
OTHER PROTECTIVE EQUIPMENT			
None.			

SECTION IX - SPECIAL PRECAUTIONS	
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING	
None.	
OTHER PRECAUTIONS	
None.	

AR200860



# MATERIAL SAFETY DATA SHEET

Consumer Products Division, Division of Borden, Inc.  
180 EAST BROAD STREET, COLUMBUS, OHIO 43215

Emergency Telephone  
(614) 431-6600  
(OPERATION ALERT)

ORIGINAL  
(Red)



THE OSHA HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200 REQUIRES THAT THE INFORMATION CONTAINED ON THIS SHEET BE MADE AVAILABLE TO YOUR WORKERS.

INSTRUCT YOUR WORKERS TO HANDLE THIS PRODUCT PROPERLY

PPE B  
UN 1950

NAME: KRYLON 1351 ELECTRONIC CONTACT CLEAN/LUB  
TYPE: AEROSOL SPRAY  
APPLICATION: ELECTRONIC CONTACT CLEANER WITH RELUBRICANT

25-Nov-85

### SIGNAL WORD—DANGER!

THIS MATERIAL IS A "HEALTH HAZARD" AND/OR A "PHYSICAL HAZARD" AS DETERMINED WHEN REVIEWED ACCORDING TO THE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION 29 CFR PART 1910.1200 "HAZARD COMMUNICATION" STANDARD.

### CHEMICAL HAZARD RATING

HEALTH=2(MODERATE)  
FIRE=4(EXTREME)  
REACTIVITY=0(LEAST)

### ACUTE HEALTH HAZARD DATA

SKIN ABSORPTION: NO HAZARDS KNOWN TO BORDEN.  
INGESTION: MAY BE HARMFUL IF SWALLOWED.  
INHALATION: MAY BE HARMFUL IF INHALED. LIQUID OR VAPOR CAN CAUSE IRRITATION OF NOSE, THROAT AND LUNGS.  
SKIN: CAUSES IRRITATION.  
EYES: CAUSES IRRITATION.

### 29CFR1910.1200 HAZARDOUS INGREDIENTS/REPORTED HEALTH EFFECTS CAS REGISTRY NO. MATERIAL DESCRIPTION % BY WT.

**74-98-6 PROPANE 12.**  
THIS MATERIAL IS A SIMPLE ASPHYXIANT. SIGNS AND SYMPTOMS OF OVEREXPOSURE INCLUDE CYANOSIS, RESPIRATORY DISTRESS, HEADACHE, DIZZINESS, DROWSINESS, UNCONSCIOUSNESS AND ASPHYXIATION.  
CAN CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION.  
ACGIH EXPOSURE LIMIT: SEE ACGIH TLVS, APPENDIX E  
OSHA 29CFR1910 EXPOSURE LIMIT: 1000 PPM, 8-HR TWA

**75-28-5 ISOBUTANE 16.**

**110-54-3 HEXANE 22.**  
CHRONIC EXPOSURES HAVE CAUSED PERIPHERAL NEUROPATHY.  
CAN CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. SIGNS AND SYMPTOMS MAY INCLUDE HEADACHE, DIZZINESS, NAUSEA, VOMITING, AND DROWSINESS.  
ACGIH EXPOSURE LIMIT: 50 PPM, 8-HR TWA  
OSHA 29CFR1910 EXPOSURE LIMIT: 500 PPM, 8-HR TWA  
NIOSH DOCUMENT NUMBER: 77-151

**142-82-5 HEPTANE 49.**  
CAN CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. SIGNS AND SYMPTOMS MAY INCLUDE HEADACHE, DIZZINESS, NAUSEA, VOMITING, UNCONSCIOUSNESS AND EVEN ASPHYXIATION.  
ACGIH EXPOSURE LIMIT: 400 PPM, 8-HR TWA  
OSHA 29CFR1910 EXPOSURE LIMIT: 500 PPM, 8-HR TWA  
NIOSH DOCUMENT NUMBER: 77-151

### HANDLING PRECAUTIONS

INHALATION: AVOID BREATHING VAPOR OR MIST.  
USE WITH ADEQUATE VENTILATION.  
SKIN: AVOID CONTACT WITH SKIN.  
EYES: AVOID CONTACT WITH EYES.  
WASH THOROUGHLY AFTER HANDLING.

### EMERGENCY AND FIRST AID PROCEDURES

INTERNAL: IF SWALLOWED, DO NOT INDUCE VOMITING. CALL A PHYSICIAN IMMEDIATELY.  
INHALATION: REMOVE TO FRESH AIR.  
SKIN CONTACT: FLUSH SKIN WITH WATER. IF IRRITATION PERSISTS, CALL A PHYSICIAN.  
EYE CONTACT: IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. CALL A PHYSICIAN.

### FIRE AND EXPLOSION HAZARD DATA

EXTREMELY FLAMMABLE.  
CONTENTS UNDER PRESSURE; EXPOSURE TO HIGH TEMPERATURE MAY CAUSE BURSTING. AVOID RADIATORS, STOVES, DIRECT SUNLIGHT, OR OTHER HEAT SOURCE.  
DO NOT PUNCTURE OR INCINERATE CONTAINER.  
DO NOT SPRAY NEAR OPEN FLAME.

### REACTIVITY DATA

NORMALLY STABLE AS DEFINED IN NFPA 704-12(4-3.1).  
MAJOR DECOMPOSITION PRODUCTS: CO, CO<sub>2</sub>

### SPECIAL PROTECTION INFORMATION

APPROVED RESPIRATORY PROTECTION REQUIRED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL.  
USE GOGGLES OR FACE SHIELD IF SPLASHING IS LIKELY.  
WEAR IMPERVIOUS GLOVES AS REQUIRED TO PREVENT SKIN CONTACT.  
WEARING SAFETY GLASSES, SAFETY SHOES, HARD HATS AND SUITABLE CLOTHING IS STANDARD PRACTICE IN MANY INDUSTRIAL OPERATIONS.

### SPILL OR LEAK PROCEDURES

ELIMINATE ALL IGNITION SOURCES.  
SOAK UP WITH ABSORBENT MATERIAL AND REMOVE TO A CHEMICAL DISPOSAL AREA.  
PREVENT ENTRY INTO NATURAL BODIES OF WATER.  
SEE REVERSE SIDE

### PHYSICAL DATA

VAPOR PRESSURE — SEE CAN PRESSURE  
VAPOR DENSITY HEAVIER THAN AIR  
SOLUBILITY IN WATER — SLIGHT  
SPECIFIC GRAVITY LIGHTER THAN WATER  
EVAP RATE FASTER THAN BUTYL ACETATE  
BOILING POINT; APPEARANCE; ODOR—N.A.  
PERCENT VOLATILE BY WEIGHT: 99  
PERCENT NON-VOLATILE BY WEIGHT: 1  
PRESSURE IN CONTAINER, PSIG @ 70 F. APPROX. 50

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MAY 19 1987

C. MURAWCZYK

DISCLAIMER—SEE REVERSE SIDE

NOR (M)

KD-1351

11/25/85

AR200861

EMERGENCY

**WASTE DISPOSAL METHOD**

DISPOSE OF ACCORDING TO LOCAL, STATE, AND FEDERAL REQUIREMENTS.

EMPTY CONTAINER: MAY CONTAIN EXPLOSIVE VAPORS. DO NOT CUT, PUNCTURE OR WELD ON OR NEARBY. INCINERATION WILL CAUSE CONTAINER TO BURST VIOLENTLY.

**STORAGE PRECAUTIONS**

DO NOT STORE AT TEMPERATURES OVER 120 F

**DOT CLASSIFICATION**

ORM-D CONSUMER COMMODITY

NOR (M)

KD-1351

11/25/85

**DISCLAIMER**

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY BORDEN, except that the product shall conform to contracted specifications, and that the product does not infringe any valid United States patent. The information provided herein was believed by Borden to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information, to comply with all laws and procedures applicable to the safe handling and use of product and to determine the suitability of the product for its intended use. Buyer's exclusive remedy shall be for damages and no-claim of any kind, whether as to product delivered or for non-delivery of product, and whether based on contract, breach of warranty, negligence or otherwise shall be greater in amount than the purchase price of the quantity of product in respect of which damages are claimed. In no event shall Seller be liable for incidental or consequential damages, whether Buyer's claim is based on contract, breach of warranty, negligence or otherwise.

AR200862



## MATERIAL SAFETY DATA SHEET

ORIGINAL  
(Red)  
ORIGINAL  
(Red)

Armstrong World Industries, Inc.  
Human Resources Department  
Liberty & Charlotte Streets, P. O. Box 3001  
Lancaster, PA 17604

RECEIVED

SEP 26 1986

Telephone (717) 396-2729 or 396-2935

C. MURAWCZYK

Divisions: Floor Products

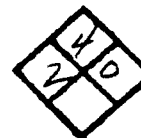
Issued By: D. E. Boudier  
Senior Safety & Health Specialist  
Date: 6/24/86 (replaces 10/31/85)

N/A = Not Applicable or Not Available  
N/K = None Known or Not Known

NFPA 704: Health = 2; Flammability = 3; Reactivity = 0 (ratings use five divisions from 0 to 4;  
0 = no special hazard; 4 = severe hazard)

## I. Product Information

- A. Product Name: S-89 Adhesive (For the installation of Armstrong Resilient Tile)
- B. Chemical Name and Synonyms: N/A
- C. Chemical or Product Family: Solvent-dispersed Adhesive



## II. Ingredient Information

A. Ingredient	Approximate Percent	C. A. S. No.	PEL/TLV	PPE	UN
VM&P Naphtha	27	8032-32-4	OSHA 500 ppm; ACGIH 300 ppm	B	1133
Petroleum Grade Asphalt	72	8052-42-4	ACGIH 5mg/m <sup>3</sup> as a fume		
Polyolefin Fiber	1	N/A	N/A		

## B. Precautionary Label Statement(s):

WARNING -- FLAMMABLE MIXTURE. DO NOT USE NEAR FIRE OR FLAME. Contains petroleum naphtha. Prevent buildup of vapors -- use with adequate ventilation -- open all doors and windows -- keep air circulating. Keep away from heat, sparks, and open flame. Prohibit smoking -- extinguish all flames and pilot lights -- turn off stoves, heaters, electric motors, and other sources of ignition until all vapors are gone. Keep container closed. If swallowed, do not induce vomiting -- call a physician immediately. Avoid prolonged breathing of vapors and prolonged contact with skin. Keep product out of reach of children.

## III. Physical Data

- A. Appearance and Color: Black asphalt mastic with hydrocarbon solvent odor
- B. Boiling Point (degrees F): 212-320
- C. Vapor Pressure (mm Hg 20 degrees C): 10.45
- D. Vapor Density (Air = 1): 3.0
- E. Solubility in Water: negligible
- F. Specific Gravity (H<sub>2</sub>O = 1): 0.92
- G. Percent Volatile by Weight (30 min. @ 275 degrees F): 27
- H. Evaporation Rate (Butyl Acetate = 1): N/K
- I. pH: N/A

## IV. Fire and Explosion Data

- A. Flash Point: 52 degrees F
- B. Flammable Limits: LEL = 1.0; UEL = 7.0
- C. Extinguishing Media: Carbon dioxide, dry chemical, Halon
- D. Special Fire Fighting Procedures: Protect fire fighters from toxic products of combustion by wearing self-contained breathing apparatus.
- E. Unusual Fire and Explosion Hazards: Closed containers in a fire may rupture due to pressure build-up; use water to cool containers to prevent this.

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ORIGINAL  
(Red)

#### V. Health Data

- A. Exposure Limits: See Section II
- B. Effects of Overexposure:
  - 1. Inhalation: Irritation of respiratory tract, coughing, headache, dizziness, drowsiness, nausea, uncoordinated movements.
  - 2. Skin and Eyes: Excessive skin contact may cause drying and cracking of the skin, and result in dermatitis. Contact with eyes will cause irritation and defatting of tissue.
- C. First Aid Procedures:
  - 1. Inhalation: Remove to fresh air if exposed to excess concentrations of vapor. Seek medical attention if symptoms persist.
  - 2. Skin and Eyes: Flush any skin or eye contact with plenty of water. Additionally with skin contact, wash with soap and water. Refer to physician if irritation or symptoms persist.
  - 3. Ingestion: Do not induce vomiting. Call Poison Control Center. Get immediate medical attention.

#### VI. Reactivity Data

- A. Stability: Stable
- B. Incompatibility: Strong oxidizing agents
- C. Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, and other toxic vapors and gases that are common to thermal degradation of organic compounds.
- D. Hazardous Polymerizations: Will not occur.

#### VII. Spill or Leak Procedures

- A. Steps to be taken if material is released or spilled: Remove all sources of ignition. Ventilate area of spill or leak; if using mechanical ventilation, make sure that it is explosion-proof or does not present an ignition source. For exposures above TLV, wear approved respiratory equipment. Use absorbent to assist with the pick-up of material.
- B. Waste Disposal Methods: Incineration or other method approved for ignitable wastes in accordance with federal, state, and local regulations.

#### VIII. Special Protection Information

- A. Ventilations: Use natural cross-ventilation, local (mechanical) pick-up, and/or general area (mechanical) ventilation to prevent an accumulation of solvent vapors, keeping in mind that the ventilation pattern must remove the heavier-than-air solvent vapors from the lower levels of the work spaces. The ventilation should be sufficient to keep the solvent vapor concentration below the TLV.
- B. Respiratory Protections: With adequate ventilation, respiratory equipment should not be needed. If adequate ventilation is not afforded, wear respiratory equipment approved for organic vapors.
- C. Skin and Eye Protections: During the manufacture and packaging of this product, impervious gloves, eye protection, and eye wash facilities may be appropriate. During normal end-product use, cotton or loop-pile gloves and spectacle-type safety glasses are recommended to prevent contact with this mastic product.

#### IX. Special Precautions

- A. Precautions to be taken in handling and storage: Store in area suitable for flammable mixtures. Recommended storage temperature is below 90 degrees F.
- B. Other Precautions: Vapors are flammable and are heavier-than-air. Prohibit smoking and eliminate all other sources of ignition, such as regular electrical tools and appliances, making sure that pilots on gas-fired water heaters are extinguished.

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The information presented herein is supplied as a guide to those who handle or use this product. Safe work practices must be employed when working with any materials. It is important that the end user makes a determination regarding the adequacy of the safety procedures employed during the use of this product.



MATERIAL SAFETY DATA SHEET

ORIGINAL  
(copy)

Armstrong World Industries, Inc.  
Human Resources Department  
Liberty & Charlotte Streets, P. O. Box 2001  
Lancaster, PA 17624

Telephone (717) 296-3729 or 296-3935

Division: Industry Products

Issued By: D. E. Boulder  
Senior Safety & Health Specialist  
Date: 10/9/85

N/A = Not Applicable or Not Available  
N/K = None Known or Not Known

MFPA 704: Health = 3; Flammability = 3; Reactivity = 0 (ratings use five divisions from 0 to 4; 0 = no special hazard; 4 = severe hazard)

I. Product Information

- A. Product Name: 530 Adhesive
- B. Chemical Name and Synonyms: N/A
- C. Chemical or Product Family: Solvent-dispersed synthetic rubber resin adhesive

II. Ingredient Information

A. Ingredient	Approximate Percent	C.A.S. No.	PEL/TLV
Acetone	25	67-64-1	OSHA 1000 ppm; ACGIH 750 ppm
Toluene	15	108-88-3	OSHA 200 ppm; ACGIH 100 ppm
Petroleum Naphtha	35	8030-30-6	OSHA 500 ppm; ACGIH 400 ppm
Synthetic Rubber	13	N/A	N/K
Phenolic Resin	9	N/A	N/K
Rubber Curing Ingredients	3	N/A	N/K

- B. Precautionary Label Statement(s):  
DANGER -- EXTREMELY FLAMMABLE MIXTURE. DO NOT USE NEAR FIRE OR FLAME. Vapors may ignite explosively. Prevent buildup of vapors--open all windows and doors--use only with cross ventilation. Keep away from heat, sparks, and open flame. Do not smoke, extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors, and other sources of ignition during use and until all vapors are gone. Close container after use. Avoid prolonged breathing of vapor and prolonged contact with skin. Keep out of the reach of children.

III. Physical Data

- A. Appearance and Color: Straw colored liquid with characteristic solvent odor.
- B. Boiling Point (degrees F): 1152
- C. Vapor Pressure (mm Hg 20 degrees C): N/K
- D. Vapor Density (Air = 1): N/K
- E. Solubility in Water: negligible
- F. Specific Gravity (H2O = 1): 0.83
- G. Percent Volatile by Weight (30 min. @ 275 degrees F): 75
- H. Evaporation Rate (Butyl Acetate = 1): N/K
- I. pH: N/A

IV. Fire and Explosion Data

- A. Flash Point: less than 20 degrees F
- B. Flammable Limits: LEL = ; UEL = N/K
- C. Extinguishing Media: Carbon dioxide, dry chemical, Halon
- D. Special Fire Fighting Procedures: Protect fire fighters from toxic products of combustion by wearing self-contained breathing apparatus.
- E. Unusual Fire and Explosion Hazards: Closed containers in a fire may rupture due to pressure build-up; use water to cool containers to prevent this.

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V. Health Data

ORIGINAL  
(Red)

- A. Exposure Limits: See Section II
- B. Effects of Overexposure:
  - 1. Inhalation: Irritation of respiratory tract, coughing, headache, dizziness, drowsiness, nausea, uncoordinated movements.
  - 2. Skin and Eyes: Excessive skin contact may cause drying and cracking of the skin, and result in dermatitis. Contact with eyes will cause irritation and defatting of tissue.
- C. First Aid Procedures:
  - 1. Inhalation: Remove to fresh air if exposed to excess concentrations of vapor. Seek medical attention if symptoms persist.
  - 2. Skin and Eyes: Flush any skin or eye contact with plenty of water. Additionally with skin contact, wash with soap and water. Refer to physician if irritation or symptoms persist.

VI. Reactivity Data

- A. Stability: Stable
- B. Incompatibility: Strong oxidizing agents
- C. Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, and other toxic vapors and gases that are common to thermal degradation of organic compounds.
- D. Hazardous Polymerizations: Will not occur.

VII. Spill or Leak Procedures

- A. Steps to be taken if material is released or spilled: Remove all sources of ignition. Ventilate area of spill or leak; if using mechanical ventilation, make sure that it is explosion-proof or does not present an ignition source. For exposures above TLV, wear approved respiratory equipment. Use absorbent to assist with the pick-up of material.
- B. Waste Disposal Methods: Incineration or other method approved for ignitable wastes in accordance with federal, state, and local regulations.

VIII. Special Protection Information

- A. Ventilation: Use natural cross-ventilation, local (mechanical) pick-up, and/or general area (mechanical) ventilation to prevent an accumulation of solvent vapors, keeping in mind that the ventilation pattern must remove the heavier-than-air solvent vapors from the lower levels of the work spaces. The ventilation should be sufficient to keep the solvent vapor concentration below the TLV.
- B. Respiratory Protection: With adequate ventilation, respiratory equipment should not be needed. If adequate ventilation is not afforded, wear respiratory equipment approved for organic vapors.
- C. Skin and Eye Protection: During the manufacture and packaging of this product, impervious gloves, eye protection, and eye wash facilities may be appropriate. During normal end-product use, cotton or lease-pile gloves and spectacle-type safety glasses are recommended to prevent contact with this mastic product.

IX. Special Precautions

- A. Precautions to be taken in handling and storage: Store in area suitable for flammable mixtures. Recommended storage temperature is below 90 degrees F.
- B. Other Precautions: Vapors are flammable and are heavier-than-air. Prohibit smoking and eliminate all other sources of ignition, such as regular electrical tools and appliances, making sure that pilots on gas-fired water heaters are extinguished.

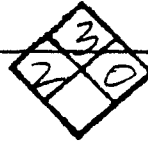
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The information presented herein is supplied as a guide to those who handle or use this product. Safe work practices must be employed when working with any materials. It is important that the end user makes a determination regarding the adequacy of the safety procedures employed during the use of this product.





MATERIAL SAFETY DATA SHEET



3110  
(RUS)

Armstrong World Industries, Inc.  
Human Resources Department  
Liberty & Charlotte Streets, P. O. Box 3001  
Lancaster, PA 17604

Telephone (717) 396-2729 or 396-2935

PPE B  
UN 1133

Division: Floor Products

Issued By: D. E. Boudier  
Senior Safety & Health Specialist  
Date: 11/5/85

N/A = Not Applicable or Not Available  
N/K = None Known or Not Known

NFPA 704: Health = 2; Flammability = 3; Reactivity = 0 (ratings use five divisions from 0 to 4: 0 = no special hazard; 4 = severe hazard)

I. Product Information

- A. Product Name: S-285 Wall Base Adhesive
- B. Chemical Name and Synonyms: N/A
- C. Chemical or Product Family: Solvent-dispersed adhesive

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II. Ingredient Information

A. Ingredient	Approximate Percent	C.A.S. No.	PEL/TLV
VM&P Naphtha	10	8032-32-4	OSHA 500 ppm; ACGIH 300 ppm
Limed Rosin, Hydrocarbon Resin, Clay Filler, Fatty Acid Soaps	90	N/A	N/A

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- B. Precautionary Label Statement(s):  
WARNING — FLAMMABLE MIXTURE. DO NOT USE NEAR FIRE OR FLAME. Contains petroleum naphtha. Prevent buildup of vapors — use with adequate ventilation — open all doors and windows — keep air circulating. Keep away from heat, sparks, and open flame. Prohibit smoking — extinguish all flames and pilot lights — turn off stoves, heaters, electric motors, and other sources of ignition until all vapors are gone. Keep container closed. If swallowed, do not induce vomiting — call a physician immediately. Avoid prolonged breathing of vapors and prolonged contact with skin. Keep out of reach of children.

III. Physical Data

- A. Appearance and Color: Brown mastic consistency with rosin-like odor
- B. Boiling Point (degrees F): N/K
- C. Vapor Pressure (mm Hg 20 degrees C): N/K
- D. Vapor Density (Air = 1): N/K
- E. Solubility in Water: negligible
- F. Specific Gravity (H2O = 1): 1.41
- G. Percent Volatile by Weight (30 min. @ 275 degrees F): 10
- H. Evaporation Rate (Butyl Acetate = 1): N/K
- I. pH: N/A

IV. Fire and Explosion Data

- A. Flash Point: 85 degrees F
- B. Flammable Limits: LEL = ; UEL = N/K
- C. Extinguishing Media: Carbon dioxide, dry chemical, Halon, water spray
- D. Special Fire Fighting Procedures: Protect fire fighters from toxic products of combustion by wearing self-contained breathing apparatus.
- E. Unusual Fire and Explosion Hazards: Closed containers in a fire may rupture due to pressure build-up; use water to cool containers to prevent this.

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ORIGINAL  
(Red)

V. Health Data

- A. Exposure Limits: See Section II
- B. Effects of Overexposure:
  - 1. Inhalation: Irritation of respiratory tract, coughing, headache, dizziness, drowsiness, nausea, uncoordinated movements.
  - 2. Skin and Eyes: Excessive skin contact may cause drying and cracking of the skin, and result in dermatitis. Contact with eyes will cause irritation and defatting of tissue.
- C. First Aid Procedures:
  - 1. Inhalation: Remove to fresh air if exposed to excess concentrations of vapor. Seek medical attention if symptoms persist.
  - 2. Skin and Eyes: Flush any skin or eye contact with plenty of water. Additionally with skin contact, wash with soap and water. Refer to physician if irritation or symptoms persist.
  - 3. Ingestion: Do not induce vomiting. Call Poison Control Center or physician for directions.

VI. Reactivity Data

- A. Stability: Stable
- B. Incompatibility: Strong oxidizing agents
- C. Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, and other toxic vapors and gases that are common to thermal degradation of organic compounds.
- D. Hazardous Polymerizations: Will not occur.

VII. Spill or Leak Procedures

- A. Steps to be taken if material is released or spilled: Remove all sources of ignition. Ventilate area of spill or leak; if using mechanical ventilation, make sure that it is explosion-proof or does not present an ignition source. For exposures above TLV, wear approved respiratory equipment. Scrape up material and place into container.
- B. Waste Disposal Method: Incineration or other method approved for ignitable wastes in accordance with federal, state, and local regulations.

VIII. Special Protection Information

- A. Ventilation: Use natural cross-ventilation, local (mechanical) pick-up, and/or general area (mechanical) ventilation to prevent an accumulation of solvent vapors, keeping in mind that the ventilation pattern must remove the heavier-than-air solvent vapors from the lower levels of the work spaces. The ventilation should be sufficient to keep the solvent vapor concentration below the TLV.
- B. Respiratory Protection: With adequate ventilation, respiratory equipment should not be needed. If adequate ventilation is not afforded, wear respiratory equipment approved for organic vapors.
- C. Skin and Eye Protection: During the manufacture and packaging of this product, impervious gloves, eye protection, and eye wash facilities may be appropriate. During normal end-product use, cotton or loop-pile gloves and spectacle-type safety glasses are recommended to prevent contact with this mastic product.

IX. Special Precautions

- A. Precautions to be taken in handling and storage: Store in area suitable for flammable mixtures. Recommended storage temperature is below 90 degrees F.
- B. Other Precautions: Vapors are flammable and are heavier-than-air. Prohibit smoking and eliminate all other sources of ignition, such as regular electrical tools and appliances, making sure that pilots on gas-fired water heaters are extinguished.

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The information presented herein is supplied as a guide to those who handle or use this product. Safe work practices must be employed when working with any materials. It is important that the end user makes a determination regarding the adequacy of the safety procedures employed during the use of this product.

ORIGINAL  
(Red)

# Product Safety Data Sheet

# ELANCO

TM

Elanco Products Company, A Division of Eli Lilly and Company, Lilly Corporate Center, Indianapolis, IN 46285

## Balan® 2.5G

## ID 5900; FN1005

BALAN® 2.5G granule is a selective preemergence herbicide for the control of crabgrass and most other annual weed grasses on lawns and golf courses.

### I. PHYSICAL AND CHEMICAL PROPERTIES

- A. Active Ingredient Generic Name  
Benefin
- B. Chemical Name  
N-butyl-N-ethyl- $\alpha,\alpha,\alpha$ -trifluoro-2,6-dinitro-*p*-toluidine
- C. Product Components
 

Benefin	2.5%
Inert Ingredients	97.5%
- D. DOT Classification  
Nonregulated
- E. Normal Physical State  
Yellowish granular material having faint aromatic odor
- F. Auto-Ignition Temperature  
No ignition up to 1382°F (750°C)
- G. Flashpoint  
No ignition up to 200°F (93.3°C)
- H. Explosive Limit  
Not applicable
- I. Solubility  
Not soluble in water
- J. Threshold Limit Value  
Not established
- K. pH (aqueous 50/50)  
9.0

### II. STABILITY AND STORAGE

Store in original container only. Do not contaminate water, food, or feed by storage or disposal.

### III. UNUSUAL FIRE AND EXPLOSION HAZARDS

None known

### IV. SPILL INFORMATION

In case of leak or spill, contain material and dispose as waste. Do not contaminate any body of water. Sweep up material. Place it and damaged unusable containers in a landfill approved for pesticides in accordance with applicable regulations. Avoid dusting.

Large spills due to traffic accidents, etc., should be reported immediately to CHEMTREC and Elanco Products Company for assistance. Prevent spilled material from flowing onto adjacent land or into streams, ponds or lakes.

### V. PROTECTIVE EQUIPMENT REQUIREMENTS

When handling molten material during manufacture, wear goggles to protect eyes, wear impermeable gloves and protective equipment to avoid direct contact with skin. In enclosed spaces, wear NIOSH (1) approved respirator for organic solvent vapors. Intense staining of the skin will occur on contact.

For instances of prolonged contact with the dry material during manufacturing or reformulation, dust goggles, NIOSH (1) approved respirator for nuisance dust and protective skin covering should be worn.

### VI. FIRE FIGHTING INFORMATION

Considered nonflammable. May emit fumes when heated to decomposition. Do not allow water run-off from fire site to enter nearby streams, ponds or lakes. Keep containers cooled with water spray.

NOTE: In case of an emergency involving human ingestion or contact, call the Eli Lilly and Company telephone operator, (317) 261-

AR200869

### Emergency Information

In the event an individual has accidentally consumed or been exposed to an Elanco product, follow the first aid procedures set forth in this document. If further information is required, have a physician contact Dr. Cherniak, M.D., (317) 261-3688. If Dr. Cherniak cannot be reached, call M. R. Goldberg, M.D., (317) 261-3498. If Dr. Goldberg cannot be reached, call Dr. Flood, M.D., (317) 261-3824. After working hours or weekends call (317) 261-3000. In case of a large chemical spill or contamination, call (317) 261-3670 at night or weekends (317) 261-3000 or CHEMTREC (800) 424-9300.

This Product Safety Sheet is principally for use by manufacturers, safety hygiene and medical personnel. For users of the formulated and packaged product, follow label directions. All information contained herein is offered in good faith and with the belief that it is accurate. As of the date of issuance, we are providing all information that we have at our disposal of relevance to the foreseeable use or handling of the product. However, in the event of an adverse incident associated with this product, this Safety Sheet is not, and is not intended, to be a substitute for consultation with appropriate health authorities.

# Product Safety Data Sheet

# ELANCO

ORIGINAL  
Red

Elanco Products Company, A Division of Eli Lilly and Company, Lilly Corporate Center, Indianapolis, IN 46285

## Balan® E. C.

## ID 5023/5805; FN 0270

BALAN® E. C., emulsifiable concentrate, is a selective herbicide for the preemergence control of annual grasses and broad-leaf weeds.

### I. PHYSICAL AND CHEMICAL PROPERTIES

- A. Active Ingredient Generic Name  
Benfen
- B. Chemical Name  
N-butyl-N-ethyl- $\alpha,\alpha,\alpha$ -trifluoro-2,6-dinitro-*p*-toluidine
- C. Product Components  
Benfen 18.0%  
Inert Ingredients 82.0%  
Contains 76% xylene
- D. DOT Classification  
Flammable liquid
- E. Normal Physical State  
Clear yellow liquid with a characteristic aromatic hydrocarbon odor
- F. Auto-Ignition Temperature  
637°F (336°C)
- G. Flashpoint  
76°F (24.5°C)
- H. Explosive Limit  
1.7 ± 0.1 mol. % at 203°F (95°C)
- I. Solubility  
Emulsifies in water
- J. Threshold Limit Value  
Not established
- K. pH (aqueous 50/50)  
6.2
- L. Boiling Point (at 1 atmosphere)  
219°F (104°C)
- M. Vapor Pressure  
16.5 mm Hg at 25°C
- N. Vapor Specific Gravity  
1.06 relative to air at 25°C
- O. Specific Gravity  
0.93 to 0.95 at 25°C

### II. STABILITY AND STORAGE

Avoid freezing. Store above 40°F (5°C). If this product has been frozen, poor weed control may result. Do not store near heat or open flame. Store in original container only. Do not contaminate water, food, or feed by storage or disposal.

### III. UNUSUAL FIRE AND EXPLOSION HAZARDS

Classified as a flammable liquid (flashpoint 76°F/24.5°C). Emits toxic fumes when heated to decomposition. Closed containers may explode when subjected to excessive heat or intense fire due to pressure build-up.

### IV. SPILL INFORMATION

In case of leak or spill, use absorbent materials to contain liquids and dispose as wastes. Do not contaminate any body of water. Small spills should be cleaned up with a suitable absorbent material. Prohibit use of hot or sparking equipment in immediate area. Place material and unusable containers in a landfill approved for pesticides in accordance with applicable state regulations.

Large spills due to traffic accidents, etc., should be reported immediately to CHEMTREC and Elanco Products Company for assistance. Prevent spilled material from flowing on adjacent land or into streams, ponds or lakes.

### V. PROTECTIVE EQUIPMENT REQUIREMENTS

During manufacture, wear goggles to protect eyes, wear impermeable gloves and protective equipment to avoid direct contact with skin. In enclosed spaces, wear NIOSH (1) approved respirator for organic solvent vapors.

### VI. FIRE FIGHTING INFORMATION

Use water, CO<sub>2</sub>, or dry chemicals to extinguish. Emits toxic fumes when heated to decomposition. Wear full protective clothing and use self-contained breathing apparatus. Nonessential personnel should be restricted from area of intense smoke. Do not allow water run-off from fire site to enter nearby streams, ponds, or lakes. Keep containers cooled with water spray.

NOTE: In case of an emergency involving human ingestion or contact, call the Eli Lilly and Company telephone operator, (317) 228-1234.

call.

### Emergency Information

In the event an individual has accidentally consumed or has been overly exposed to an Elanco product, follow the first aid procedures set forth in this document. If further information is required, have a physician contact M. R. Chernish, M.D., (317) 261-2828, if Dr. Chernish cannot be reached, call M. R. Goldberg, M.D., (317) 261-2825. If Dr. Goldberg cannot be reached, call M. R. Cloud, M.D., (317) 261-2826. After working hours or weekends call (317) 261-8000. In case of a large chemical spill or contamination, call (317) 261-2870, at night or weekends (317) 261-2000 or (317) 261-2800.

This Product Safety Sheet is printed and formulated for use by manufacturers, safety hygienists and medical personnel. It is formulated and packaged product, follow label directions. All information contained herein is offered in good faith and with the belief that it is accurate. As of the date of issuance, we are providing all information that we have or are aware of relevant to the foreseeable use or handling of the product. However, in the event of an adverse incident associated with this product, this Safety Sheet is not, and is not intended, to be a substitute for consultation with appropriate medical personnel.

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## VII. TOXICOLOGY

### A. Acute Exposure (BALAN E.C.)

1. **Eyes**—BALAN E.C. when placed in the eyes of rabbits caused severe damage.
2. **Skin**—Severe dermal irritation but no systemic toxicity occurred when 2 ml of BALAN E.C. per kg of body weight were applied to the shaved and abraded backs of rabbits for 24 hours.
3. **Inhalation**—Rats exposed for one hour to an atmosphere containing a liquid droplet aerosol of BALAN E.C. at a concentration of 0.9 mg/L of air were unaffected.
4. **Ingestion**—Rats were given a single oral dose of 0.5 ml of BALAN E.C. per kg of body weight. No deaths or overt signs of toxicity occurred during the 14-day observation period.
5. **Sensitization**—Based on positive findings from a guinea pig sensitization study of technical benefin in alcohol, BALAN E.C. should be considered a potential contact sensitizer.

## VIII. HUMAN HEALTH

Laboratory animal studies that have been conducted with benefin indicate that the use of benefin does not present a hazard when recommended handling procedures are followed.\*

### IX. FIRST AID (Statement of Practical Treatment)

- A. Eyes**—Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. See an ophthalmologist (eye doctor) immediately.
- B. Skin**—Wash all exposed areas with plenty of soap and water immediately. Wash all contaminated clothes before reuse. Call a physician if irritation persists.
- C. Inhalation**—Remove individual to fresh air. If breathing difficulty occurs, provide cardiopulmonary resuscitation assistance and get medical attention.
- D. Ingestion**—Contact a physician immediately. This product contains an aromatic hydrocarbon and can be extremely harmful if swallowed. If this happens, and the patient is conscious, IMMEDIATELY ADMINISTER activated charcoal (6-8 heaping teaspoonfuls) with water. Do not give anything by mouth to an unconscious person. Gastric lavage with a cuffed endotracheal tube to prevent aspiration should be completed within 15 minutes. In the absence of depression, convulsions, or impaired gag reflex, vomiting can be induced with a blunt instrument or finger. MAKE CERTAIN VOMITUS IS NOT INHALED BY RAISING HIPS HIGHER THAN HEAD. If patient is unconscious, DO NOT INDUCE VOMITING.

## X. LABEL STATEMENTS

### A. Container Disposal

Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

### B. Dangers

1. **Human**—Keep out of reach of children. Corrosive. Causes eye damage. Do not get in eyes. Avoid contact with skin, eyes, or clothing. Harmful if swallowed or absorbed through the skin. BALAN E.C. may cause skin sensitization reactions in certain individuals. Use eye protection or face shield and protective clothing such as coveralls, a long sleeved shirt, and impermeable gloves when handling this product. Do not contaminate foodstuffs or feeds.
2. **Environmental**—This product is toxic to fish. Do not contaminate any body of water by direct application, cleaning of equipment or disposal of wastes.

EPA Registration Number: 1471-55 (ID5023);  
1471-77 (ID5805)  
Chemical Abstract Registry Number: 1861-40-1

## XI. REFERENCES

- (1) 1985 NIOSH Certified Equipment Guide

NOTE: This information applies only to BALAN E.C. which is sold in the U.S.

\*For user handling procedures, refer to product label; for manufacturing handling procedures refer to NACA Guidelines for the Good Workplace Standard for the Manufacturing and Formulation of Pesticides.

AR200871  
BALAN® E.C. (benefin, Elanco)  
Issued 12/80; Revised 10/85

# MATERIAL SAFETY DATA SHEET

## I PRODUCT IDENTIFICATION

MANUFACTURER'S NAME	UNION RUBBER, INC.	REGULAR TELEPHONE NO.	(609) 396-9328
		EMERGENCY TELEPHONE NO.	(713) 656-3424
ADDRESS	232 Allen Street, Trenton, New Jersey 08606		P.O. Box 1040
TRADE NAME	BESTINE Solvent & Thinner		
SYNONYMS	Commercial Hexane		
SHIPPING NAME <sup>1</sup>	DOT: Hexane	DOT Ident. No.	UN1208
	IATA: Hexane	IATA Ident. No.	UN1208

## II HAZARDOUS INGREDIENTS<sup>2</sup>

MATERIAL OR COMPONENT	CAS NO.	%	HAZARD DATA
n-Hexane	110-54-3	40.	See below
<p>The presence (approximately 40%) of n-Hexane (normal hexane) in this solvent mixture represents a distinct hazard of producing peripheral polyneuropathy, a progressive disorder of the nervous system, which with sufficient high exposure has the potential of becoming irreversible. This disorder has been observed in individuals exposed repeatedly to high vapor concentrations (1000-1500 ppm) of n-Hexane over a period of several months. BESTINE exposure should be controlled to keep the maximum level below 100 ppm which will result in n-Hexane exposure of less than 50 ppm.</p>			

## III PHYSICAL DATA

BOILING POINT, 760 MM HG	IBP-DryPt. 149-157°F	MELTING POINT	Liquid
SPECIFIC GRAVITY (H <sub>2</sub> O = 1)	0.67	VAPOR PRESSURE @100°F	6.4 psi
VAPOR DENSITY (AIR = 1)	3.0	SOLUBILITY IN H <sub>2</sub> O % BY WT	Negligible
% VOLATILES BY VOL.	100.	EVAPORATION RATE (BUTYL ACETATE = 1)	15.8
APPEARANCE AND ODOR	Water white liquid. Mild pleasant hydrocarbon odor.	Ph (AS IS) Ph (1% SOLN.)	Not applicable.

## IV FIRE AND EXPLOSION DATA

FLASH POINT (TEST METHOD)	<0°F Tag Closed Cup.	AUTOIGNITION TEMPERATURE	615°F
FLAMMABLE LIMITS IN AIR, % BY VOL.	LOWER	1.2%	UPPER 6.9%
EXTINGUISHING MEDIA	Foam, dry chemical, CO <sub>2</sub> , water fog or spray.		
AL FIRE FIGHTING PROCEDURES	Use air-supplied equipment for enclosed areas. Cool exposed containers with water spray. Avoid breathing vapor.		
UNUSUAL FIRE AND EXPLOSION HAZARD	Do not store or mix with strong oxidants such as liquid chlorine or concentrated oxygen. Extremely flammable liquid.		

AR200872

ORIGINAL (REV)

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(Reg)

V HEALTH HAZARD INFORMATION

HEALTH HAZARD DATA	HAZARD CLASSIFICATION	BASIS FOR CLASSIFICATION	SOURCE
ROUTES OF EXPOSURE  INHALATION	Slightly toxic	70,000 ppm 4 hrs. exposure  $< LC_{50}$ (rat)	Exxon Corp.
SKIN CONTACT	Slightly toxic	Defats the skin which can cause irritation and dermatitis.	Exxon Corp.
SKIN ABSORPTION	None	Not absorbed.	Exxon Corp.
EYE CONTACT	Mild irritant	Does not injure eye tissue.	Exxon Corp.
INGESTION	Slightly toxic	25 ml/Kg $< LD_{50}$ (rat)	Exxon Corp.

EFFECTS OF OVEREXPOSURE

ACUTE OVEREXPOSURE Headaches, dizziness and in extreme cases - unconsciousness.

CHRONIC OVEREXPOSURE In excess of 500 ppm, can cause peripheral polyneuropathy.

EMERGENCY AND FIRST AID PROCEDURES

EYES: Flush with water continuously until irritation subsides.

SKIN: Remove contaminated clothing, wash with soap and water.

INHALATION: Remove from exposure immediately. If breathing is irregular or stopped, start resuscitation, administer oxygen. Call a Physician.

INGESTION: Keep subject calm and at rest. DO NOT induce vomiting. Call a Physician.

NOTES TO PHYSICIAN

AR200873

## VI REACTIVITY DATA

ORIGINAL  
(Reel)

### CONDITIONS CONTRIBUTING TO INSTABILITY

● Stable material.

**INCOMPATIBILITY** Strong oxidants such as liquid chlorine, concentrated oxygen, sodium and calcium hypochlorite.

### HAZARDOUS DECOMPOSITION PRODUCTS

Carbon monoxide in the event of incomplete combustion.

### CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION

Does not occur.

## VII DISPOSAL, SPILL OR LEAK PROCEDURES

### AQUATIC TOXICITY (E.G. 96 HR. TLM):

Not applicable.

### WASTE DISPOSAL METHOD

● Assure conformity with applicable disposal regulations. Dispose of absorbed material at an approved disposal site or facility. (Caution: See Section II)

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED** Remove all ignition sources. Keep people away. Recover free liquid. Keep out of sewers and streams by diking or impounding. Add absorbent (sand, earth, sawdust, etc.) to spill area. Avoid breathing vapors. Ventilate confined spaces. Open all windows and doors.

### NEUTRALIZING CHEMICALS

None.

## VIII SPECIAL PROTECTION INFORMATION

### VENTILATION REQUIREMENTS

There should be sufficient air movement in the work area to prevent buildup of toxic or flammable concentrations of vapor in the air.

### SPECIFIC PERSONAL PROTECTIVE EQUIPMENT

**RESPIRATORY (SPECIFY IN DETAIL)** Use hydrocarbon vapor canister or supplied-air respiratory protection in confined or enclosed spaces if needed.

**EYE** Use splash goggles or face shield when eye contact may occur.

● **YES** Use chemical-resistant gloves, if needed to avoid repeated or prolonged skin contact.

**OTHER CLOTHING AND EQUIPMENT** Use chemical-resistant apron or other clothing if needed to avoid repeated or prolonged skin contact.

AR 200874





# Material Safety Data Sheet

00710

Manufacturers Name: The Butcher Polish Company  
 Address: 120 Bartlett Street, Marlborough, MA 01752  
 Emergency Telephone No: (617) 481-5700

Signature of Person Responsible for Preparation: *Bonita C. Patterson*  
 Date Prepared: March 19, 1985

## IDENTITY

Common Name (used on label): **BRIGHT Washroom Cleaner**  
 Trade Name & Synonyms:

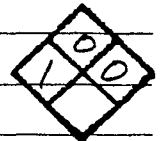
## INGREDIENT INFORMATION

Principal Hazardous Component(s) (chemical & common name(s))	CAS No	%	Threshold Limit Value (units)
2-Butoxy ethanol	111-76-2	3-5	25ppm Skin
Ammonium hydroxide	1336-21-6	0.5-1	25ppm
Butane	106-97-8	3-5	800ppm

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C. MURAWCZYK



PPE: B  
 UN: 1142

## PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point: 212°F  
 Specific Gravity (H<sub>2</sub>O = 1): NA  
 Vapor Pressure: 50-55 psig @ 64°F  
 Percent Volatile by Volume (%): NA  
 Vapor Density (Air = 1): ND  
 Evaporation Rate (\_\_\_\_\_ = 1): ND  
 Solubility in Water: Complete  
 Appearance and Odor: Aerosol product; floral odor

Flash Point: NA  
 Flammable Limits in Air % by Volume: Lower ND Upper  
 Extinguisher Media: Foam, CO<sub>2</sub>, dry chemical water

Special Fire Fighting Procedures: This product is not flammable as per 16 CFR 1500.45. Cool uninvolved containers with water. Full protective equipment should be worn when this product is involved in a fire.

Unusual Fire and Explosion Hazards: Contents under pressure. Container may explode if exposed to excessive heat.

AR200875

ND = Not Determined

NE = Not Established

NA = Not Applicable



Common Name (used on label) **BRIGHT Washroom Cleaner**  
Trade Name & Synonyms

**REACTIVITY DATA**

Reactivity Data: Conditions None known  
Stability:  Stable

Reactivity Data: Anionic material, oxidizers (e.g. bleach)

Hazardous Decomposition Products: Normal products of combustion.

Hazardous Polymerization: Max. Occur. Conditions None known to THE BUTCHER POLISH COMPANY  
Polymerization:  No Occur.  Stable

**HAZARD DATA**

Signs and Symptoms of Overexposure: Causes eye damage and skin irritation. Harmful if swallowed.

Inhalation of mist may irritate respiratory tract. Preexisting eye, skin and respiratory disorders may be aggravated.

Material Used as Carcinogen: None  
Potential Carcinogen

Emergency and First Aid Procedures:

Inhalation: Remove to fresh air. Call a physician if symptoms persist.

Eyes: Flush with water for at least 15 minutes. Call a physician.

Skin: Flush with water. Call a physician if irritation develops.

Ingestion: Drink large quantities of water. Do not induce vomiting. Call a physician.

**SPECIAL PROTECTION INFORMATION**

Respiratory Protection: None required if good ventilation is maintained.

Hand Protection: When skin contact may be a problem, wear rubber or other impervious gloves.

Eye Protection: Where eye contact may be a problem, wear chemical splash goggles and face shield.

**SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES**

Precautions to be Taken in Handling and Storage: Use good personal hygiene practice. Wash contaminated clothing and equipment before reuse.

Steps to be Taken in Case Material is Released or Spilled: Before attempting clean-up, refer to Hazard Data above. Wipe up spill and rinse area with water.

Waste Disposal Methods: Dispose of this material in accordance with federal, state and local regulations.

AR200876



# Material Safety Data Sheet

ORIGINAL

00180

Manufacturer's Name: The Butcher Polish Company  
 Address: 120 Bartlett Street, Marlborough, MA 01752  
 Emergency Telephone No: (617) 481-5700

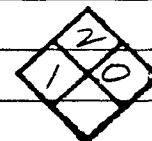
Signature of Person Responsible for Preparation: *Bonita C. Patterson*  
 Date Prepared: March 19, 1985

## IDENTITY

Common Name (used on label):  
 Trade Name & Synonyms: DEODORANT

## INGREDIENT INFORMATION

Principal Hazardous Component(s) (chemical & common name(s))	CAS No	%	Threshold Limit Value (units)
2-Butoxy ethanol	111-76-2	3-6	25ppm Skin



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C. MURAWCZYK

## PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point: 212°F  
 Specific Gravity (H<sub>2</sub>O = 1): 0.99  
 Vapor Pressure: ND  
 Percent Volatile by Volume (%): 88  
 Vapor Density (Air = 1): ND  
 Evaporation Rate (--- = 1): NA  
 Solubility in Water: Complete  
 Appearance and Odor: Clear green liquid; mild fruity odor.

Flash Point: 145°F  
 Flammable Limits in Air % by Volume: Lower ND Upper  
 Extinguisher Media: Water, dry chemical, CO<sub>2</sub>, foam  
 Special Fire Fighting Procedures: In case of fire, cool uninvolved containers with water.

Unusual Fire and Explosion Hazards: When exposed to temperatures above 120°F, build-up vapor may occur.

AR200877

ND = Not Determined

NE = Not Established

NA = Not Applicable



Common Name (used on label) DEODORANT  
Trade Name & Synonyms

REACTIVITY DATA

Stability Unstable  Conditions  
Stable  to Avoid None known

(ORIGINAL)

Incompatible Materials to Avoid: None known to THE BUTCHER POLISH CO.

Hazardous Decomposition Products: Normal products of combustion.

Hazardous Polymerization May Occur  Conditions  
Will Not Occur  to Avoid None known to THE BUTCHER POLISH CO.

HAZARD DATA

Signs and Symptoms of Overexposure: Direct contact of product with eyes may cause irritation. Inhalation of vapor may irritate respiratory tract. Pre-existing eye, skin and respiratory disorders may be aggravated.

Chemical Listed as Carcinogen or Potential Carcinogen: None

Emergency and First Aid Procedures

- 1 Inhalation: Remove to fresh air. Call a physician if symptoms persist.
- 2 Eyes: Flush with water for at least 15 minutes. Call a physician.
- 3 Skin: Flush with water. Call a physician if irritation develops.
- 4 Ingestion: Drink large quantities of water. Do not induce vomiting. Call a physician.

SPECIAL PROTECTION INFORMATION

- Respiratory Protection: None required if good ventilation is maintained.
- Protective Gloves: If prolonged or repeated contact is possible, wear rubber or other impervious gloves.
- Eye Protection: Where eye contact may be a problem, wear chemical splash goggles.

SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

Precautions to be Taken in Handling and Storage: Practice good personal hygiene. Wash contaminated clothing and equipment before reuse.

Steps to be Taken in Case Material is Released or Spilled: Before attempting clean-up, refer to Hazard Data above. Use mop or wet vacuum to collect material for proper disposal. Rinse area with water.

Waste Disposal Methods: Dispose of this material in accordance with federal, state and local regulations. **44200878**



# Material Safety Data Sheet

ORIGINAL  
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00190

Manufacturers Name: **The Butcher Polish Company**      Emergency Telephone No: **(617) 481-5700**  
 Address: **120 Bartlett Street, Marlborough, MA 01752**

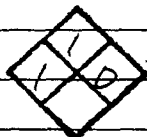
Signature of Person Responsible for Preparation: *Bonita C Patterson*      Date Prepared: **March 19, 1985**

## IDENTITY

Common Name (used on label) / Trade Name & Synonyms: **PEARLY Tile and Porcelain Cleaner**

## INGREDIENT INFORMATION

Principal Hazardous Component(s) (chemical & common names)	CAS No.	%	Threshold Limit Value (units)
1-Butoxyethoxy-2-propanol	124-16-3	1-3	NE
Citric acid	77-92-9	1-2	NE
Monoethanolamine	141-43-5	1	3ppm



PPE: B  
 IN: 11/2

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SEP 30 1986

C. MURAWCZYK

## PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point: **212°F**      Specific Gravity (H<sub>2</sub>O = 1): **1.04**      Vapor Pressure: **ND**  
 Percent Volatile by Volume (%): **91**      Vapor Density (Air = 1): **ND**      Evaporation Rate (\_\_\_\_\_ = 1): **NA**  
 Solubility in Water: **Complete**  
 Appearance and Odor: **Pearlescent pink liquid, mild fruity odor.**

Flash Point: **200°F +**      Flammable Limits in Air % by Volume: Lower **ND** Upper **ND**      Extinguisher Media: **NA**  
 Special Fire Fighting Procedures: **This product is not flammable.**

Unusual Fire and Explosion Hazards: **None known to THE BUTCHER POLISH CO.**

# AR200879

ND = Not Determined

NE = Not Established

NA = Not Applicable



Common Name (used on label) PEARLY Tile and Porcelain Cleaner  
 Trade Name & Synonyms

**REACTIVITY DATA**

Stability: Unstable  Conditions Stable  to Avoid None known

Incompatibility: Materials to Avoid: Metals (e.g. aluminum), oxidizers (e.g. bleach), and nitrosating agents (e.g. sodium nitrite). (red)

Hazardous Decomposition Products: Normal products of combustion.

Hazardous Polymerization: May Occur  Conditions to Avoid  None known to THE BUTCHER POLISH CO.

**HAZARD DATA**

Signs and Symptoms of Overexposure: Inhalation of mist may irritate respiratory tract. Pre-existing eye, skin and respiratory disorders may be aggravated.

Chemical Listed as Carcinogen or Potential Carcinogen: None

Emergency and First Aid Procedures:

- 1 Inhalation: Remove to fresh air. Call a physician if symptoms persist.
- 2 Eyes: Flush with water for at least 15 minutes. Call a physician.
- 3 Skin: Flush with water. Call a physician if irritation develops.
- 4 Ingestion: Drink large quantities of water. Do not induce vomiting. Call a physician.

**SPECIAL PROTECTION INFORMATION**

Respiratory Protection: None required if good ventilation is maintained.

Protective Gloves: If prolonged or repeated contact is possible, wear rubber or other impervious gloves.

Eye Protection: Where eye contact may be a problem, wear chemical splash goggles.

**SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES**

Precautions to be Taken in Handling and Storage: Practice good personal hygiene. Wash contaminated clothing and equipment before reuse.

Steps to be Taken in Case Material is Released or Spilled: Before attempting clean-up, refer to Hazard Data above. Use mop or wet vacuum to collect material for proper disposal. Rinse area with water.

Waste Disposal Methods: Dispose of this material in accordance with federal, state and local regulations.

AR200880



# Material Safety Data Sheet

00010

Manufacturer's Name: The Butcher Polish Company  
 Address: 120 Bartlett Street, Marlborough, MA 01752  
 Emergency Telephone No: (617) 481-5700

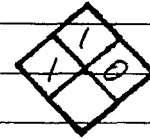
Signature of Person Responsible for Preparation: *Bonita C Paderson*  
 Date Prepared: March 19, 1985

## IDENTITY

Common Name (used on label):  
 Trade Name & Synonyms: **SPEEDBALL Power Cleaner**

## INGREDIENT INFORMATION

Principal Hazardous Component(s) (chemical & common name(s))	CAS No	%	Threshold Limit Value (units)
2-Butoxy ethanol	111-76-2	3-6	25ppm Skin
Monoethanolamine	141-43-5	1-2	3ppm



PPE: B  
 UN: 1142

## PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point: 212°F  
 Specific Gravity (H<sub>2</sub>O = 1): 1.0  
 Vapor Pressure: ND  
 Percent Volatile by Volume (%): 98  
 Vapor Density (Air = 1): ND  
 Evaporation Rate (\_\_\_\_\_ = 1): NA  
 Solubility in Water: Complete  
 Appearance and Odor: Clear green liquid; mint odor

Flash Point: 200°F+  
 Flammable Limits in Air % by Volume: Lower ND, Upper  
 Extinguisher Media: NA

Special Fire Fighting Procedures: This product is not flammable

# RECEIVED

SEP 20 1986

Unusual Fire and Explosion Hazards: None known to THE BUTCHER POLISH COMPANY

C. MURAWCZYK

# AR200881

ND = Not Determined

NE = Not Established

NA = Not Applicable



Common Name (used on label) SPEEDBALL Power Cleaner  
Trade Name & Synonyms:

**REACTIVITY DATA**

Stability: Unstable  Conditions  
Stable  to Avoid None known

Chemically Incompatible Materials to Avoid: Acids (e.g. muriatic), oxidizer (e.g. bleach) and sodium nitrite.

Hazardous Decomposition Products: Normal products of combustion.

Hazardous Polymerization: May Occur  Conditions  
Will Not Occur  to Avoid None known to THE BUTCHER POLISH CO.

**HAZARD DATA**

Signs and Symptoms of Overexposure: Direct contact of product with eyes may cause burns. Prolonged or repeated contact with skin may cause irritation. Inhalation of mist may irritate respiratory tract. Pre-existing eye, skin and respiratory disorders may be aggravated.

Chemical Listed as Carcinogen or Potential Carcinogen:

Emergency and First Aid Procedures:

- 1 Inhalation: Remove to fresh air. Call a physician if symptoms persist.
- 2 Eyes: Flush with water for at least 15 minutes. Call a physician.
- 3 Skin: Flush with water. Call a physician if irritation develops.
- 4 Ingestion: Drink large quantities of water. Do not induce vomiting. Call a physician.

**SPECIAL PROTECTION INFORMATION**

- Respiratory Protection: None required if good ventilation is maintained.
- Protective Gloves: If prolonged or repeated contact is possible, wear rubber or other impervious gloves.
- Eye Protection: Where eye contact may be a problem, wear chemical splash goggles and face shield.

**SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES**

Precautions to be Taken in Handling and Storage: Practice good personal hygiene. Wash contaminated clothing and equipment before reuse.

Steps to be Taken in Case Material is Released or Spilled: Before attempting clean-up, refer to Hazard Data above. Use mop or wet vacuum to collect material for proper disposal. Rinse area with water.

Waste Disposal Methods: Dispose of this material in accordance with federal, state and local regulations. AR200882

The information on this data sheet represents our current data and best opinion as to the proper use in handling of this product under normal conditions. Any use of the product which is not in conformance with this data sheet or which involves using the product in combination with any other product or any other process is the responsibility of the user.





# Material Safety Data Sheet

00210

Manufacturers Name: **The Butcher Polish Company**  
 Address: **120 Bartlett Street, Marlborough, MA 01752**  
 Emergency Telephone No: **(617) 481-5700**

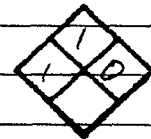
Signature of Person Responsible for Preparation: *Bonita C Patterson*  
 Date Prepared: **March 19, 1985**

## IDENTITY

Common Name (used on label): **SUNBATH Deodorizing Cleaner**  
 Trade Name & Synonyms:

## INGREDIENT INFORMATION

Principal Hazardous Component(s) (chemical & common name(s))	CAS No	%	Threshold Limit Value (units)
2-Butoxy ethanol	111-76-2	2-4	25ppm Skin



PPE: B  
 UN: 1142

## PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point: **212°F**  
 Specific Gravity (H<sub>2</sub>O = 1): **1.01**  
 Vapor Pressure: **ND**  
 Percent Volatile by Volume (%): **94**  
 Vapor Density (Air = 1): **ND**  
 Evaporation Rate (\_\_\_\_\_ = 1): **NA**  
 Solubility in Water: **Complete**  
 Appearance and Odor: **Clear blue liquid; fruity odor.**

Flash Point: **200°F+**  
 Flammable Limits in Air % by Volume: Lower **ND**, Upper **ND**  
 Extinguisher Media: **NA**

Special Fire Fighting Procedures: **This product is not flammable.**

**RECEIVED**  
 SEP 30 1986

Unusual Fire and Explosion Hazards: **None known to THE BUTCHER POLISH CO.**

**C. MURAWCZYK**

**AR200883**

ND = Not Determined      NE = Not Established      NA = Not Applicable



Common Name (used on label) SUNBATH Deodorizing Cleaner  
Trade Name & Synonyms)

**REACTIVITY DATA**

Stability: Unstable  Conditions None known  
Stable  to Avoid

Incompatibility: None known to THE BUTCHER POLISH CO.  
Materials to Avoid

Hazardous Decomposition Products: Normal products of combustion.

Hazardous Polymerization: May Occur  Conditions None known to THE BUTCHER POLISH CO.  
Will Not Occur  to Avoid

**HAZARD DATA**

Signs and Symptoms of Overexposure: Direct contact of product with eyes and skin may cause irritation.

Inhalation of mist may irritate respiratory tract. Pre-existing eye, skin and respiratory disorders may be aggravated.

Chemical Listed as Carcinogen or Potential Carcinogen: None

**Emergency and First Aid Procedures**

- 1 Inhalation: Remove to fresh air. Call a physician if symptoms persist.
- 2 Eyes: Flush with water for at least 15 minutes. Call a physician.
- 3 Skin: Flush with water. Call a physician if irritation develops.
- 4 Ingestion: Drink large quantities of water. Do not induce vomiting. Call a physician.

**SPECIAL PROTECTION INFORMATION**

- Respirator Protection: None required if good ventilation is maintained.
- Protective Gloves: If prolonged or repeated contact is possible, wear rubber or impervious gloves.
- Eye Protector: Where eye contact may be a problem, wear chemical splash goggles.

**SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES**

Precautions to be Taken in Handling and Storage: Use good personal hygiene practice. Wash contaminated clothing and equipment before reuse.

Steps to be Taken in Case Material is Released or Spilled: Before attempting clean-up, refer to Hazard Data above. Use mop or wet vacuum to collect material for proper disposal. Rinse area with water.

Waste Disposal Methods: Dispose of this material in accordance with federal, state and local regulations. AR200884

The information on this data sheet represents our current data and best opinion as to the proper use in handling of this product under normal conditions. Any use of the product which is not in conformance with this data sheet or which involves using the product in combination with any other product or any other process is the responsibility of the user.

## IX SPECIAL PRECAUTIONS

### PRECAUTIONARY

#### STATEMENTS

CAUTION -FLAMMABLE MIXTURE. DO NOT USE NEAR FIRE OR FLAME.

DANGER: Extremely flammable. Keep away from heat, sparks and open flame. Contains petroleum distillates. Use with adequate ventilation. Avoid contact with the skin. Keep container closed when not in use. If swallowed, DO NOT INDUCE VOMITING, call a Physician. Keep out of the reach of children.

### OTHER HANDLING AND STORAGE REQUIREMENTS

Store in a cool location.

Do not store with strong oxidants.

### ADDITIONAL REGULATORY CONCERNS

#### FEDERAL:

FDA

USDA

CPSC

TSCA IS THIS PRODUCT, OR ALL ITS INGREDIENTS; BEING CERTIFIED FOR INCLUSION ON THE TOXIC SUBSTANCES CONTROL ACT INVENTORY OF CHEMICAL SUBSTANCES? Yes

#### OTHER

#### STATE:

TLV (Threshold Limit Value) - 100 ppm for 8-hour workday, 40-hour week.

PREPARED BY John R. Mills

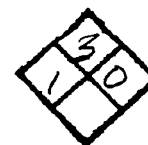
AR200885

TITLE: Technical Consultant to

COMPANY: UNION RUBBER, INC.

ADDRESS: Trenton, New Jersey 08606

J.T. Baker Co  
 222 Red School Lane  
 Phillipsburg, NJ 08865  
 201-859-2151  
 800-424-9300



PPE B

UN 1123 Page: 1  
 Issued: 09/25/86

86184 -02  
 Effective: 08/26/86

Butyl Acetate

SECTION I - PRODUCT IDENTIFICATION

Product Name: Butyl Acetate  
 Formula:  $CH_3COOCH_2CH_2CH_2CH_3$   
 Formula Wt: 116.16  
 CAS No.: 00123-86-4  
 NIOSH/RTECS No.: AF7350000  
 Common Synonyms: n-Butyl Acetate; Butyl Ethanoate; Acetic Acid Butyl Ester  
 Product Codes: 9160, 5365, 9159, D683, 9191, 9164, 9161

PRECAUTIONARY LABELLING

BAKER SAF-T-DATA<sup>TM</sup> System

HEALTH <b>1</b> SLIGHT	FLAMMABILITY <b>3</b> SEVERE	REACTIVITY <b>1</b> SLIGHT	CONTACT <b>1</b> SLIGHT
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Laboratory Protective Equipment



Precautionary Label Statements

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OCT 01 1986

WARNING!  
 FLAMMABLE

CAUSES IRRITATION  
 HARMFUL IF SWALLOWED OR INHALED

C. MURAWCZYK

Keep away from heat, sparks, flame. Avoid contact with eyes, skin, clothing. Avoid breathing vapor. Keep in tightly closed container. Use with adequate ventilation. Wash thoroughly after handling. In case of fire, use alcohol foam, dry chemical, carbon dioxide - water may be ineffective. Flush spill area with water spray.

SECTION II - HAZARDOUS COMPONENTS

Component	%	CAS No.
Butyl Acetate	90-100	123-86-4

SECTION III - PHYSICAL DATA

Boiling Point: 126°C ( 259°F) Vapor Pressure(mmHg): 8

AR200886

Continued on Page: 2

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ORIGINAL  
(Red)

RS184 -02  
Effective: 08/28/86

Butyl Acetate

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Issued: 09/25/86

SECTION III - PHYSICAL DATA (Continued)

Melting Point:	-75°C ( -103°F)	Vapor Density(air=1):	4
Specific Gravity: (H <sub>2</sub> O=1)	0.88	Evaporation Rate: (Butyl Acetate=1)	5.8
Solubility(H <sub>2</sub> O):	Slight (0.1 to 1 %)	% Volatiles by Volume:	100

Appearance & Odor: Clear, nearly colorless liquid; characteristic fruity odor.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Closed Cup):	26°C ( 78°F)	NFPA 704M Rating:	1-3-0
Flammable Limits:	Upper - 7.6 %	Lower -	1.7 %

Fire Extinguishing Media

Use alcohol foam, dry chemical or carbon dioxide.  
(Water may be ineffective.)

Special Fire-Fighting Procedures

Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode. Move containers from fire area if it can be done without risk. Use water to keep fire-exposed containers cool.

Unusual Fire & Explosion Hazards

Vapors may flow along surfaces to distant ignition sources and flash back. Closed containers exposed to heat may explode. Contact with strong oxidizers may cause fire.

Toxic Gases Produced

carbon monoxide, carbon dioxide

SECTION V - HEALTH HAZARD DATA

Threshold Limit Value (TLV/TWA):	710 mg/m <sup>3</sup> (150 ppm)
Short-Term Exposure Limit (STEL):	950 mg/m <sup>3</sup> (200 ppm)
Permissible Exposure Limit (PEL):	710 mg/m <sup>3</sup> (150 ppm)

Toxicity: LD<sub>50</sub> (oral-rat)(g/kg)

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(Red)

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Butyl Acetate

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SECTION V - HEALTH HAZARD DATA (Continued)

Carcinogenicity: NTP: No IARC: No Z List: No OSHA reg: No

Effects of Overexposure

Vapors are extremely irritating to skin, eyes, and mucous membranes. Inhalation of vapors may cause headache, nausea, vomiting, dizziness, drowsiness, irritation of respiratory tract, and loss of consciousness. Liquid may be irritating to skin, eyes, and mucous membranes. Prolonged exposure may cause dermatitis. Ingestion may cause nausea and vomiting.

Medical Conditions Generally Aggravated By Exposure

None Identified

Routes Of Entry

inhalation, ingestion, eye contact, skin contact

Emergency and First Aid Procedures

CALL A PHYSICIAN.  
If swallowed, if conscious, immediately induce vomiting.  
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.  
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Flush skin with water.

SECTION VI - REACTIVITY DATA

Stability: Stable Hazardous Polymerization: Will not occur

Conditions to Avoid: heat, flame, other sources of ignition

Incompatibles: strong oxidizing agents, strong acids, strong bases

Decomposition Products: carbon monoxide, carbon dioxide

SECTION VII - SPILL AND DISPOSAL PROCEDURES

Steps to be taken in the event of a spill or discharge

Wear suitable protective clothing. Shut off ignition sources; no flares, smoking, or flames in area. Stop leak if you can do so without risk. Use water spray to reduce vapors. Take up with sand or other non-combustible absorbent material and place into container for later disposal. Flush area with water.

J. T. Baker Solusorb<sup>R</sup> solvent adsorbent is recommended for spills of this product.

AR200888

ORIGINAL  
1986

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Butyl Acetate

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Issued: 09/25/86

-----  
SECTION VII - SPILL AND DISPOSAL PROCEDURES (Continued)  
-----

Disposal Procedure

Dispose in accordance with all applicable federal, state, and local environmental regulations.

EPA Hazardous Waste Number: D001 (Ignitable Waste)  
-----

SECTION VIII - INDUSTRIAL PROTECTIVE EQUIPMENT  
-----

Ventilation: Use general or local exhaust ventilation to meet TLV requirements.

Respiratory Protection: Respiratory protection required if airborne concentration exceeds TLV. At concentrations up to 1000 ppm, a chemical cartridge respirator with organic vapor cartridge is recommended. Above this level, a self-contained breathing apparatus is recommended.

Eye/Skin Protection: Safety glasses with sideshields, rubber gloves are recommended.  
-----

SECTION IX - STORAGE AND HANDLING PRECAUTIONS  
-----

SAF-T-DATA<sup>TM</sup> Storage Color Code: Red

Special Precautions

Bond and ground containers when transferring liquid. Keep container tightly closed. Store in a cool, dry, well-ventilated, flammable liquid storage area.  
-----

SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION  
-----

DOMESTIC (D.O.T.)

Proper Shipping Name Butyl acetate  
Hazard Class Flammable liquid  
UN/NA UN1123  
Labels FLAMMABLE LIQUID  
Reportable Quantity 5000 LBS.

INTERNATIONAL (I.M.O.)

Proper Shipping Name Butyl acetates  
Hazard Class 3.2  
UN/NA UN1123  
Labels FLAMMABLE LIQUID

AR200889

ORIGINAL  
(Red)

26184 -02

Butyl Acetate

Page: 5

Effective: 08/28/86

Issued: 09/25/86

-----  
N/A = Not Applicable or Not Available  
-----

The information published in this Material Safety Data Sheet has been compiled from our experience and data presented in various technical publications. It is the user's responsibility to determine the suitability of this information for the adoption of necessary safety precautions. We reserve the right to revise Material Safety Data Sheets periodically as new information becomes available.

AR200890

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0008





# MATERIAL SAFETY DATA SHEET

ORIGINAL  
(copy)

PPE  
UN NA

Required under USOL Safety and Health Regulations for Ship Repairing,  
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

## SECTION I C.F.R. IDENTIFICATION NO. NA-1133

MANUFACTURER'S NAME

Dennison Manufacturing Company, Dennison Carter's

EMERGENCY TELEPHONE NO.

(617) 879-0511 X4636

ADDRESS (Number, Street, City, State, and ZIP Code)

300 Howard St., Framingham, MA 01701

CHEMICAL NAME AND SYNONYMS

N.A.

TRADE NAME AND SYNONYMS

Carter's Rubber Cement

CHEMICAL FAMILY

N.A.

FORMULA

N.A.

## SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS Naphthenes	10	160 PPM	FILLER METAL PLUS COATING OR CORE FLUX		
Paraffins	90				
ADDITIVES *Aromatics	0		OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)
Natural Rubber - CAS #9006-04-6					
Antioxidant - CAS #119-47-I					
Rubber Solvent - CAS #64742-89-8					
Isopropanol - CAS #67-63-0					
* Benzene Content - Non detected at 1 part per million.					

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.) TR - Dry Pt. (140-224°F)	60-107°C	SPECIFIC GRAVITY (H <sub>2</sub> O=1) @ 25°F	0.72
VAPOR PRESSURE (mm Hg.) Est. @ 37.78°C	200	PERCENT. VOLATILE BY VOLUME (%)	87
VAPOR DENSITY (AIR=1)		EVAPORATION RATE (Bu. Ac. = 1) Est.	10
SOLUBILITY IN WATER	Negligible	<b>Autoignition</b>	500°F
APPEARANCE AND ODOR Buff Color liquid with hydrocarbon odor.			

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	0°F	FLAMMABLE LIMITS Est.	Let	Uet
EXTINGUISHING MEDIA	CO <sub>2</sub> -Foam - Dry Chemical, Water fog or spray			
SPECIAL FIRE FIGHTING PROCEDURES Use air supplied breathing equipment for enclosed areas. Cool exposed containers with water spray.				
UNUSUAL FIRE AND EXPLOSION HAZARDS Do not mix or store with strong oxidants oxygen.				

AR200891

ORIGINAL  
(Red)

**SECTION V - HEALTH HAZARD DATA**

**THRESHOLD LIMIT VALUE**  
See Sec. II - Recommended exposure limit is 160 PPM for 8 hrs. work day.

**EFFECTS OF OVEREXPOSURE**  
Eye irritation, drying of skin, excessive inhalation causes headache, dizziness and nausea.

**EMERGENCY AND FIRST AID PROCEDURES**  
Eye contact: Flush with water; Call a Physician. Inhalation: Remove to fresh air and restore breathing; Call a Physician. Skin contact: Wash with soap and water.

**SECTION VI - REACTIVITY DATA**

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	Heat, sparks, open flame
<b>INCOMPATIBILITY (Materials to avoid)</b> Strong oxidant like liquid chlorine.			
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b> Fumes, smoke and carbon monoxide in the case of complete combustion.			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

**SECTION VII - SPILL OR LEAK PROCEDURES**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**  
Avoid open flames or spark sources. Provide adequate ventilation. Add absorbent (sawdust, sand etc.) to spill area. Read product container.

**WASTE DISPOSAL METHOD**  
Evaporate and peel residue from surface. Treat as hydrocarbon solvent.

**SECTION VIII - SPECIAL PROTECTION INFORMATION**

**RESPIRATORY PROTECTION (Specify type)**

VENTILATION	LOCAL EXHAUST	SPECIAL Use with adequate ventilation.
	MECHANICAL (General) Explosion proof equipment.	OTHER No smoking
PROTECTIVE GLOVES * Yes	EYE PROTECTION * Yes	
OTHER PROTECTIVE EQUIPMENT		

\*Use discretion when small quantities are being used.

**SECTION IX - SPECIAL PRECAUTIONS**

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING**  
Avoid open flames spark sources, splash filling, excessive heat. Keep containers closed when not in use.

**OTHER PRECAUTIONS**  
Carefully read all directions and cautions on product container.

AR200892

**NOTICE FROM DENNISON MFG. CO.**

To the best of our knowledge this information is accurate; however, we do not warrant, represent or guarantee its accuracy and completeness. It is not intended to be a substitute for professional judgment, consultation or actual testing. No liability is assumed for any reliance thereon.

# MATERIAL SAFETY AND HEALTH DATA SHEET

Essentially similar to form LSB-OOS-4 (U.S. Department of Labor)

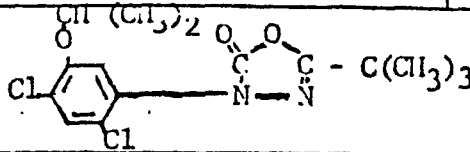
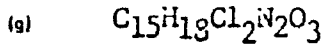


## Section 1 NAME & PRODUCT

(a) Rhone-Poulenc, Inc.	EMERGENCY PHONE NO. 24 HOURS (b) 800-424-9300
STREET ADDRESS (c) 120 Jersey Avenue	DATE (d) 8/4/81
CITY, STATE, ZIP CODE (e) New Brunswick, New Jersey 08903	

CHEMICAL NAME TRADE NAME AND SYNONYMS  
(f) Chipco Ronstar® G; Oxadiazon

FORMULA OF PRIMARY COMPONENT(S) (STRUCTURAL)



## Section 2 INGREDIENTS

INGREDIENTS	%
Oxadiazon	98
Inert Ingredients	2

## Section 3 PHYSICAL DATA

2 BOILING POINT (°F)	NA	6 SPECIFIC GRAVITY (H <sub>2</sub> O = 1)	37 lbs/cu. ft.
3 VAPOR PRESSURE (mmHg at 20°C)	NA	7 % VOLATILE BY VOLUME	-----
4 VAPOR DENSITY (air = 1)	NA	8 COLOR AND ODOR	Grey-white; slight odor
5 SOLUBILITY IN WATER	Insoluble	9 PHYSICAL STATE	Flowable solid

## Section 4 FIRE AND EXPLOSION HAZARD DATA

10 FLASH POINT (AND METHOD USED) NA °F

11 FLAMMABLE L M T S STP  
L.F.L. ----- U.F.L. -----

12 EXTINGUISHING MEDIA:  NA  WATER FOG  FOAM  ALCOHOL FOAM  CO<sub>2</sub>  DRY CHEMICAL  OTHER

13 SPECIAL FIRE FIGHTING PROTECTIVE EQUIPMENT: Self-contained breathing apparatus

14 UNUSUAL FIRE AND EXPLOSION HAZARDS: None

## Section 5 REACTIVITY DATA

15 STABILITY: NORMAL CONDITIONS  FIRE CONDITIONS  16 CONDITIONS TO AVOID: Stable

17 INCOMPATIBILITY (Materials to avoid):  WATER  ACID  BASE  CORROSIVE  OXIDIZING MATERIAL  OTHER

18 HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen chloride and nitrogen oxides may be emitted on combustion.

19 HAZARDOUS POLYMERIZATION: MAY OCCUR  WILL NOT OCCUR  20 CONDITIONS TO AVOID: AR200893

(FRONT)

# MATERIAL SAFETY AND HEALTH DATA SHEET (cont.)



## Section 6 HEALTH HAZARD DATA

- 21 ORAL INGESTION A.O. (rat) LD<sub>50</sub>: > 30,000 mg/kg
- 22 EYE CONTACT Mild eye irritant when NOT followed by water washout; not irritant when eyes are immediately washed
- 23 SKIN CONTACT A.D. (rabbit) LD<sub>50</sub>: > 10,000 mg/kg
- 24 SKIN ABSORPTION -----
- 25 INHALATION (TLV OR SUGGESTED CONTROL FIGURE) TLV not established; LC<sub>50</sub>: 200 mg/l of air
- 26 EFFECTS FROM INHALATION OVER EXPOSURE -----

27 FIRST AID PROCEDURES	EYE	Wash immediately with large volume of water and call a physician
	SKIN:	Wash with soap and a large volume of water.
	INHALATION:	Remove from area of exposure.
	INGESTION:	Induce vomiting and call a physician.

## Section 7 SPILL OR LEAK PROCEDURES

- 28 STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Absorb with vermiculite and sweep up into steel drum.

- 29 DISPOSAL METHOD Bury in an approved chemical landfill away from open or underground water. Follow local, state, and federal regulations.

## Section 8 SPECIAL PROTECTION INFORMATION

- VENTILATION Provide adequate ventilation.
- 31 RESPIRATORY PROTECTION (SPECIFY TYPE) Use NIOSH/MSHA approved air purifying respirator with appropriate cartridge
- 32 PROTECTIVE CLOTHING Work uniform, gloves
- 33 EYE PROTECTION
 

<input type="checkbox"/> NOT NORMALLY NECESSARY	<input type="checkbox"/> SAFETY GLASSES WITHOUT SIDE SHIELDS	<input type="checkbox"/> SAFETY GLASSES WITH SIDE SHIELDS	<input checked="" type="checkbox"/> CHEMICAL WORKERS GOGGLES
<input type="checkbox"/> GAS TIGHT GOGGLES, OR EQUIVALENT	<input type="checkbox"/> OTHER:		
- 4 OTHER PROTECTIVE EQUIPMENT Provide eye wash fountain and safety shower facilities in the work area.

## Section 9 SPECIAL PRECAUTIONS OR OTHER COMMENTS

- 5 PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Avoid contact with eyes, skin and clothing. Do not store with other pesticides, foodstuffs, or seeds. Open dumping is prohibited.
- OTHER PRECAUTIONS Do not eat, drink, or smoke in the work area. Keep out of reach of children. Avoid contamination of local water supply, ponds, or streams. Do not allow spray drift to contact desirable plants. Containers may be disposed of in a chemical landfill approved for pesticide containers after thorough rinsing. Do not allow containers to be reused in original form.

# MATERIAL SAFETY AND HEALTH DATA SHEET 5/3/85

Essentially similar to form LSB-OOS-4 (U.S. Department of Labor)



Section 1 NAME & PRODUCT		EMERGENCY PHONE NO. 24 HOURS	
(a)	Rhone-Poulenc, Inc.	(b)	800-424-9300
STREET ADDRESS		DATE	
(c)	PO Box 125, Black Horse Lane	(d)	1/8/82 (R)
CITY, STATE, ZIP CODE			
(e)	Morrmouth Junction, NJ 08852		
CHEMICAL NAME TRADE NAME, AND SYNONYMS			
(f)	Chipco Ronstar G; Oxadiazon formulated granular		
FORMULA OF PRIMARY COMPONENT(S) (STRUCTURAL)			
(g)	$C_{15}H_{18}Cl_2N_2O_3$		

Section 2 INGREDIENTS		%
[19666-30-9] Oxadiazon		2
Inert ingredients		98

Section 3 PHYSICAL DATA			
2 BOILING POINT (°F.)	NA	6 Bulk Density	37 pounds/cu. ft.
3 VAPOR PRESSURE (mmHg at 20°C)	NA	7 % VOLATILE BY VOLUME	NA
4 VAPOR DENSITY (air = 1)	NA	8 COLOR AND ODOR	Grey-white; slight odor
5 SOLUBILITY IN WATER	Insoluble	9 PHYSICAL STATE	Flowable solid

Section 4 FIRE AND EXPLOSION HAZARD DATA			
10 FLASH POINT (AND METHOD USED)	NA °F	11 FLAMMABLE L M TS STP	L.F.L. NA U.F.L. NA
12 EXTINGUISHING MEDIA	<input checked="" type="checkbox"/> WATER FOG	<input checked="" type="checkbox"/> FOAM	<input type="checkbox"/> ALCOHOL FOAM
	<input checked="" type="checkbox"/> CO <sub>2</sub>	<input checked="" type="checkbox"/> DRY CHEMICAL	<input type="checkbox"/> OTHER
13 SPECIAL FIRE FIGHTING PROTECTIVE EQUIPMENT	Use self-contained breathing apparatus.		

14 UNUSUAL FIRE AND EXPLOSION HAZARDS  
None

Section 5 REACTIVITY DATA			
15 STABILITY	NORMAL CONDITIONS	<input checked="" type="checkbox"/>	16 CONDITIONS TO AVOID
	FIRE CONDITIONS		Stable
17 INCOMPATIBILITY (Materials to avoid)	<input type="checkbox"/> WATER	<input type="checkbox"/> ACID	<input checked="" type="checkbox"/> BASE
	<input type="checkbox"/> CORROSIVE	<input type="checkbox"/> OXIDIZING MATERIAL	<input type="checkbox"/> OTHER:

18 HAZARDOUS DECOMPOSITION PRODUCTS  
Hydrogen chloride, nitrogen oxides, and carbon oxides may be emitted on combustion. AR200895

19 HAZARDOUS POLYMERIZATION	MAY OCCUR	<input type="checkbox"/>	20 CONDITIONS TO AVOID
	WILL NOT OCCUR		Not Applicable

(FRONT)

CHIPCO RONSTAR G  
**MATERIAL SAFETY AND HEALTH DATA SHEET (cont.)**



Section 6 HEALTH HAZARD DATA

- 21 ORAL INGESTION Acute oral (rat) LD<sub>50</sub>: > 30,000 mg/kg
- 22 EYE CONTACT Mild eye irritant when NOT followed by water rinsing. No irritation when e
- 23 SKIN CONTACT Acute dermal (rabbit) LD<sub>50</sub>: > 10,000 mg/kg
- 24 SKIN ABSORPTION NA
- 25 INHALATION (TLV OR SUGGESTED CONTROL FIGURE) TLV not established LC<sub>50</sub>: > 200 mg/l air
- 26 EFFECTS FROM INHALATION OVER EXPOSURE NA

FIRST AID PROCEDURES	EYE: Flush eyes thoroughly with large volume of water. Seek medical assistance as necessary, especially if irritation develops or persists.
	SKIN: Wash with soap and a large volume of water. Seek medical assistance as necessary, especially if irritation develops or persists.
	INHALATION: Remove from area of exposure. Seek medical assistance as necessary.
	INGESTION: Induce vomiting. Seek medical assistance as necessary.

Section 7 SPILL OR LEAK PROCEDURES

- 28 STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Sweep up into a steel drum. Use vermicu- lite during clean-up if necessary.
- 29 DISPOSAL METHOD Dispose of in accordance with Local, State and Federal regulations.

Section 8 SPECIAL PROTECTION INFORMATION

- 30 VENTILATION Provide adequate ventilation. Use local exhaust fans as necessary, especial when using in a closed area.
- 31 RESPIRATORY PROTECTION (SPECIFY TYPE) Use NIOSH/MSHA approved air purifying respirator with appropriate cartridge
- 32 PROTECTIVE CLOTHING Work uniform, gloves

- 33 EYE PROTECTION
 

<input type="checkbox"/> NOT NORMALLY NECESSARY	<input type="checkbox"/> SAFETY GLASSES WITHOUT SIDE SHIELDS	<input type="checkbox"/> SAFETY GLASSES WITH SIDE SHIELDS	<input checked="" type="checkbox"/> CHEMICAL WORKERS GOGGLES
<input type="checkbox"/> GAS TIGHT GOGGLES OR EQUIVALENT	<input type="checkbox"/> OTHER:		

- 34 OTHER PROTECTIVE EQUIPMENT Provide eye wash fountain and safety shower in the work area.

Section 9 SPECIAL PRECAUTIONS OR OTHER COMMENTS

- 35 PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
 

Store in a cool, dry place in tightly closed containers. Avoid breathing dusts.

Avoid direct or prolonged contact with skin and eyes: Wash hands thoroughly after handling. Do not eat, drink, or smoke in the work area. **KEEP OUT OF**
- 36 OTHER PRECAUTIONS
 

**REACH OF CHILDREN AND ANIMALS. READ LABEL CAREFULLY BEFORE USE.** Avoid contaminating water sources. Do not allow spray drift to contact desirable plants. Do not re-use containers. Do not graze animals on treated animals. Open dumping is prohibited.

The information herein is given in good faith but no warranty, express or implied, is made

Bullen Trade Name

Type Product

Code

ORIGINAL

PREPARED BY BULLEN CHEMICAL CO., DELMAR DR., BOX 37, FOLCROFT, PA 19032 • EMERGENCY PHONE 215/724-8100

# MATERIAL SAFETY DATA SHEET (BULLEN CHEMICAL)

(Prepared According to 29 CFR 1910.1200)

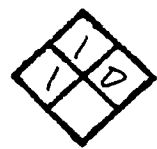
Date Prepared 12/13/85 *psj*

## SECTION 1 - PRODUCT IDENTIFICATION

Distributor Name <b>ZIMMERMAN</b>	Emergency Telephone No.
Address	
Trade Name <b>COMPLEX 66 DEGREASER</b>	Product Type

## SECTION 2 - HAZARDOUS INGREDIENTS

CHEMICAL NAME/Common Name	CAS NO.	PERCENT optional	TLV (Source)
Sodium metasilicate	6834-92-0		Not established



PPE B  
UN 1142

Other Ingredients in Product are  Less than 1% by Weight or Less than 0.1% for Carcinogens  Not Hazardous  Declared to be Trade Secrets

## SECTION 3 - PHYSICAL DATA

Boiling Point (°F) 212	Specific Gravity (H <sub>2</sub> O = 1.0) 1.060 ± 0.005	pH 12.5 ± 0.5
Vapor Pressure (mmHg) Not known	Vapor Density (Air = 1) Not known	
Solubility in Water <input checked="" type="checkbox"/> Complete <input type="checkbox"/> Insoluble	<input type="checkbox"/> Emulsifiable (or dispersible)	<input type="checkbox"/> Slight (or partial)
Evaporation Rate (vs H <sub>2</sub> O) <input type="checkbox"/> Faster <input type="checkbox"/> Slower	<input checked="" type="checkbox"/> About the Same	

Appearance and Odor **Liquid, practically odorless**

## SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

Flash Point (TCC) <input checked="" type="checkbox"/> None to Boiling	Flammable Limits Upper Unknown	Lower Unknown
--	-----------------------------------	---------------

Extinguishing Media **CO<sub>2</sub>, dry chemical, foam, water spray.**

Special Fire Fighting Procedures **None known**

Unusual Fire and Explosion Hazards **None known**

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## SECTION 5 - REACTIVITY DATA

Stable  Unstable      Incompatibility **Strong oxidizers, anionic compounds**

Hazardous Decomposition Products **Carbon monoxide and other unidentified organic compounds may be formed during incomplete combustion.**

ORIGINAL

Source (MSD)

**SECTION 6 - HEALTH HAZARDS**Threshold Limit Value - Product  
(See Section 2 for Ingredient TLV) None Established  Not Applicable

Primary Routes of Exposure

 Eye  Skin  Oral  Inhalation  Other

Signs and Symptoms of Overexposure (Acute)

Eyes: redness, irritation. Skin: redness, irritation.

Swallowing: may irritate mucous membranes. Possible vomiting or nausea may occur.

Signs and Symptoms of Overexposure (Chronic)

Not known

Medical Conditions Aggravated by Overexposure

Not known

Carcinogen or Suspect  
Carcinogen Ingredients NTP  ARC  OSHA  None**SECTION 7 - EMERGENCY AND FIRST AID PROCEDURES IN CASE OF OVEREXPOSURE**

Eyes: Flush immediately with water for at least 15 minutes. If persistent irritation occurs, call a physician.

SKIN

Wash thoroughly with soap and water.

Ingestion

Induce vomiting

Inhalation

N/A

**SECTION 8 - SPECIAL PROTECTION INFORMATION**

Respiratory Protection Not needed under normal conditions.

Ventilation Requirements  Local Exhaust  Mechanical  Other

Protective Gloves Rubber

Eye Protection Safety glasses or goggles

Other Protective Clothing

May be needed if splashing occurs

**SECTION 9 - SPILL OR LEAK PROCEDURES**

Steps to be Taken if Released or Spilled

Flush spill area with water. For large spills, contain and collect

for disposal.

Waste Disposal Methods

Dispose of in accordance with applicable federal, state and local regulations

AR200898

**SECTION 10 - STORAGE AND HANDLING INFORMATION**

Precautions to be Taken in Handling and Storage

Avoid contact with skin, eyes and clothing.

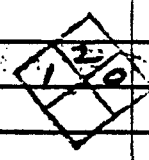


# MATERIAL SAFETY DATA SHEET

ORIGINAL  
(Red)

PRODUCT NAME <sup>CRC</sup> 5-56 (Bulk) #5007, 5009, 5011	# MSDS005007
MANUFACTURED BY: CRC CHEMICALS	Phone (215) 674-4300
885 LOUIS DRIVE, WARMINSTER, PA. 18974	

1. INGREDIENTS	CAS #	ACGIH TLV	OSHA PEL	Other Limits	%
Petroleum Distillate	64742-47-8	NA	NA	200ppm (Est.)	70
*Inhibited Paraffinic Oil	NA			For Mist 5 mg/M <sup>3</sup>	30
*The oil and additives are not hazardous according to OSHA standards - Additives are primarily fatty acids and fatty acid esters.					



PP3  
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1268

2. PHYSICAL DATA		
Specific Gravity .8167	Vapor Pressure 0.23 mm	% Volatile 70
Boiling Point 380°F (initial)	Evaporation Rate Slow 0.01 (Toluene = 1)	
Freezing Point NA	Vapor Density Heavier than air	
Appearance and Odor Amber liquid, pleasant odor		
Solubility Nonliquefiable in water - Dissolves in most organic solvents.		

3. FIRE AND EXPLOSION DATA		
Flashpoint 175°F Method COC	Flammable Limits	
Extinguishing Media CO <sub>2</sub> , Dry Chemical or Foam	LEL NA	UEL NA
Unusual Hazards Treat as typical oil fire		

4. REACTIVITY AND STABILITY	
Stability Stable	
Hazardous decomposition products CO <sub>2</sub> & Carbon monoxide (Fire)	
Materials to avoid Strong oxidizing agents	

5. PROTECTION INFORMATION	
Ventilation Adequate ventilation to maintain oil mist below PEL if sprayed.	
Respiratory Use NIOSH approved respirators for high mist concentrations	
Gloves Solvent resistant	Eye & Face Safety glasses
Other Protective Equipment Oil resistant aprons, boots, etc. should be worn if other parts of body are subject to exposure	

PP3  
UN  
1268

ORIGINAL  
(req.)

**6. HEALTH HAZARD DATA**

Primary Routes of Entry Skin, Inhalation

Signs and Symptoms of Exposure

1. Acute Overexposure May cause burning and irritation of eyes. Skin contact will cause dryness. Inhalation of mist may cause breathing problems. Vapors may also cause headaches and nausea.

2. Chronic Overexposure Prolonged exposure to skin may cause development of dermatitis.

Medical Conditions Generally Aggravated by Exposure NA

Chemical Listed as Carcinogen or Potential Carcinogen	National Toxicology Program	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	IARC Monographs	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	OSHA	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
---	-----------------------------	--	-----------------	--	------	--

Emergency and First Aid Procedures (If symptoms persist, call a physician)

1. Inhalation Remove to fresh air - apply artificial respiration if needed.

2. Eyes Flush for 15 minutes with large amounts of water.

3. Skin Remove contaminated clothing. Wash exposed skin with soap & water.

4. Ingestion Do not induce vomiting - Call a doctor.

**7. SPILL OR LEAK PROCEDURES**

Precautions to be taken in Handling and Storage Store in a cool dry area.

Steps to be taken in case Materials is released or spilled Ventilate area, remove any source of ignition. Dike area and absorb with sand or other absorbant. Scrape up and place in drums.

Waste Disposal Comply with federal, state and local regulations for oil waste material.

**8. SPECIAL PRECAUTIONS AND USE DIRECTIONS**

Keep containers closed when not in use. Spills should be kept out of streams or water supply.

AR200900

PREPARED BY: A. B. Reed

ORIGINAL DATE OR DATE OF REVISION November 1985

NOTICE: JUDGEMENT BASED ON INDIRECT TEST DATA.  
**AEROSOL MATERIAL SAFETY DATA SHEET**  
 (ESSENTIALLY SIMILAR TO FORM OSHA-20)

EMERGENCY PHONE (305) 874-6440

**DYNA SOLV AEROSOL**

A88 All Purpose Cleaner 7609

QUICK PRODUCT IDENTIFIER (IN PLANT COMMON NAME)

**Chemi-cap**

*Zimmerman Inc.*

Original (Red)

2 DIO  
B

UN 1142

CHEMICAL PACKAGING CORPORATION  
 P.O. BOX 9947, FT. LAUDERDALE, FL 33310

I - IDENTIFICATION			
NAME OF PERSON RESPONSIBLE FOR PREPARATION	<i>W. Smith</i>	DATE PREPARED	12-11-85
FORMULA	Proprietary Mixture	TRADE NAME	All Purpose Cleaner
PACKAGE TYPE		Aerosol Container	

II - HAZARDOUS INGREDIENTS			
PRINCIPAL HAZARDOUS COMPONENT(S) (CHEMICAL NAME(S))	CAS#	APPROX. % (wt)	TLV (ppm)
Butyl Cellosolve	111-76-2		50
Sodium Metasilicate	7601-54-9		
Trisodium Phosphate	9002-93-1		
Octylphenol Polyethoxylate			
PROPELLANT	Propane/Butane	74-98-6/75-28-5	1000

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III - PHYSICAL DATA			
BOILING POINT (°F) OF CONCENTRATE	N.D.	SPECIFIC GRAVITY (H <sub>2</sub> O = 1) @ 75°F OF CONCENTRATE	1.036
VAPOR PRESSURE (psig) IN CAN @ 75°F	63	% VOLATILE BY VOLUME IN CAN	93
VAPOR DENSITY	N.D.	FLASH POINT OF CONCENTRATE	150 F T.O.C.
SOLUBILITY IN WATER OF CONCENTRATE	Complete	APPEARANCE AND ODOR OF SPRAY	Clear water white liquid perfume odor

IV - FIRE & EXPLOSION HAZARD DATA			
FLAMMABILITY as per CPSC FLAME EXTENSION TEST	Non-flammable	FLAMMABLE LIMITS	Lower N/A Upper N/A
EXTINGUISHING MEDIA	Water, Foam, Dry Chemical, Carbon Dioxide		
SPECIAL FIRE FIGHTING PROCEDURES	KEEP CONTAINERS COOL. USE EQUIPMENT OR SHIELDING REQUIRED TO PROTECT PERSONNEL AGAINST BURSTING, RUPTURING OR VENTING CONTAINERS.		
UNUSUAL FIRE & EXPLOSION HAZARDS	AT ELEVATED TEMPERATURES (ABOVE 120°F) CONTAINERS MAY VENT, RUPTURE OR BURST.		

V - REACTIVITY DATA			
CHEMICAL STABILITY	UNSTABLE		CONDITIONS TO AVOID Do not store at temp. above 120 F
	STABLE	XX	
INCOMPATIBILITY (Materials to avoid)	None		
HAZARDOUS DECOMPOSITION PRODUCTS	Thermal decomposition may produce carbon monoxide and/or carbon dioxide		
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID None
	WILL NOT OCCUR	XX	

AR200901

AEROSOL PRODUCTS PRESENT A LIMITED RISK IF THE DIRECTIONS AND CAUTIONS ARE FOLLOWED. INTENTIONAL MIS-USE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS CAN BE HARMFUL, OR FATAL. PRESSURIZED CONTAINERS MUST NOT BE EXPOSED TO TEMPERATURES ABOVE 120°F AND SPRAY SHOULD NOT BE DIRECTED TOWARD FACE OR EYES, OPEN FLAME OR OTHER SOURCE OF IGNITION.

**VI - HEALTH HAZARD DATA**

OSHA PERMISSIBLE EXPOSURE LIMIT N.D.	THRESHOLD LIMIT VALUE See Section
---	--------------------------------------

**EFFECTS OF OVER EXPOSURE**

**INHALATION:**  
Product exist as foam. Inhalation will cause strangulation.

**SKIN CONTACT/ABSORPTION:**  
No evidence of adverse effect from available information.

**INGESTION:**  
Can cause gastrointestinal irritation, vomiting and diarrhea

ORIGINAL  
(rect)

**EYES:**  
Minor irritation

**EMERGENCY AND FIRST AID PROCEDURES**

**EYES AND SKIN** Flush with water for at least 15 minutes

**INHALATION** Treat for strangulation

**INGESTION** Do not induce vomiting, get medical attention

**VII - SPILL OR LEAK PROCEDURES**

**STEPS TO BE TAKEN IN CASE CONTAINER IS PUNCTURED AND MATERIAL IS RELEASED.**  
Clean up area by mopping or with absorbent materials and place in containers for disposal. Consult Federal, Local and State authorities for approved disposal procedures

**WASTE DISPOSAL METHOD**

WHEN USED PROPERLY AEROSOL PRODUCTS DO NOT GENERATE HAZARDOUS WASTE. EMPTY DE-PRESSURIZED CONTAINERS CAN NOT BE REUSED AND SHOULD BE WRAPPED AND PUT IN TRASH COLLECTION. CANS WHICH ARE PRESSURIZED OR CONTAIN LIQUID MUST BE DISPOSED OF IN A PERMITTED WASTE MANAGEMENT FACILITY. CONSULT FEDERAL, STATE AND LOCAL DISPOSAL AUTHORITIES FOR APPROVED PROCEDURES.

**VII - SPECIAL PROTECTION INFORMATION**

**SPECIFIC PERSONAL PROTECTIVE EQUIPMENT**

**RESPIRATORY** Under normal conditions no respiratory protection is required

**EYE** None required, chemical splash goggles may be worn

**SKIN** None required, protective gloves may be worn

**OTHER** Normal ventilation adequate

**VENTILATION REQUIREMENTS**

**IX - SPECIAL PRECAUTIONS**

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING**

Do not store at temperatures above 120 F.

**SPECIAL PRECAUTIONARY STATEMENTS**

PLEASE READ AND FOLLOW THE DIRECTIONS ON THE PRODUCT LABEL; THEY ARE YOUR BEST GUIDE TO USING THIS PRODUCT IN THE MOST EFFECTIVE WAY, AND GIVE THE NECESSARY SAFETY PRECAUTIONS TO PROTECT YOUR HEALTH.

AR200902

NOTICE: WE BELIEVE THAT THE INFORMATION CONTAINED ON THIS MATERIAL SAFETY DATA SHEET IS ACCURATE. THE SUGGESTED PROCEDURES ARE BASED ON EXPERIENCE AS OF THE DATE OF PUBLICATION. THEY ARE NOT NECESSARILY ALL-INCLUSIVE NOR FULLY ADEQUATE IN EVERY CIRCUMSTANCE. ALSO, THE SUGGESTIONS SHOULD NOT BE CONFUSED WITH NOR FOLLOWED IN VIOLATION OF APPLICABLE LAWS, REGULATIONS, RULES OR INSURANCE REQUIREMENTS.

NO WARRANTY, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE IS MADE.

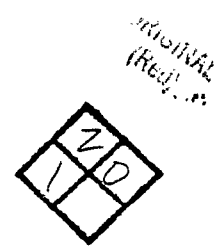
SANFORD CORPORATION  
 2740 WASHINGTON BLVD.  
 BELLWOOD, IL. 60104

EMERGENCY TELEPHONE NUMBER: 312 547-6650

LATEST REVISION DATE: March, 1986

SECTION I PRODUCT IDENTIFICATION

SANFORD PRODUCT NAME: Expo White Board Cleaner



PPE B  
 UN 1142

INK NAME: Expo Cleaner

CHEMICAL FAMILY: Mixture

FORMULA: Proprietary

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AUG 4 1986

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SECTION II INGREDIENTS

INGREDIENT	PERCENT BY WEIGHT
Water	49 - 70
Isopropanol	10 - 40
Ethylene glycol monobutyl ether	10 - 40

SECTION III PHYSICAL DATA

BOILING POINT (°F): 180 - 343  
 VAPOR PRESSURE (mmHg): 33 at 20°C for isopropanol  
 VAPOR DENSITY (Air = 1): 1.0 - 4.1  
 SPECIFIC GRAVITY: 0.95 - 0.96  
 PERCENT VOLATILE BY VOLUME: 100  
 EVAPORATION RATE: Not available  
 SOLUBILITY IN WATER: Infinite  
 APPEARANCE AND ODOR: Clear liquid, mild odor

AR200903

SECTION IV... FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used): 105°F (TCC)  
 LOWER EXPLOSION LIMIT: 2.5% for isopropanol  
 UPPER EXPLOSION LIMIT: Not available  
 EXTINGUISHING MEDIA: Alcohol foam, dry chemical, carbon dioxide

SPECIAL FIRE FIGHTING PROCEDURE: Self-contained breathing apparatus with a full face-piece operated in pressure-demand or other positive pressure mode.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Heavier than air vapors which may be ignited by remote ignition sources.

SECTION V HAZARDOUS INGREDIENTS

INGREDIENT	CAS #	PERCENT BY WEIGHT	EXPOSURE LIMIT
Isopropanol	67-63-0	10 - 40	PEL 400 ppm; TLV 400 ppm
Ethylene glycol monobutyl ether	11-76-2	10 - 40	PEL 50 ppm; TLV 25 ppm skin

SECTION VI HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: Not determined; Oral LD<sub>50</sub> (rats) greater than 5.0 g/kg

EFFECTS OF OVEREXPOSURE: (Not established but inferred from information supplied for each of the ingredients.)

EYE: Severe irritation, redness, tearing, blurred vision.

SKIN: Moderate irritation, defatting, dermatitis.

INHALATION: Excessive inhalation can cause nasal and respiratory irritation, dizziness, nausea, headache.

INGESTION: Gastrointestinal irritation, nausea, vomiting, and diarrhea.

AR200904

SECTION VII      FIRST AID AND EMERGENCY PROCEDURES FOR OVEREXPOSURE (Based on information supplied for various ingredients.)

EYE CONTACT:      Flush with large amounts of water. Get medical attention.

SKIN CONTACT:      Thoroughly wash with soap and water. Remove and launder contaminated clothing.

INHALATION:      If affected, remove to fresh air. Get medical attention if symptoms persist.

INGESTION:      Give conscious patient two glasses of water and induce vomiting. Get medical attention.

SECTION VIII      REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY:      Stable

INCOMPATIBILITY:      Avoid strong oxidizing agents.

HAZARDOUS REACTIONS AND DECOMPOSITIONS PRODUCTS:      None

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION:      Cannot occur

SECTION IX      SPILL OR LEAK PROCEDURES

SPILL OR LEAK PROCEDURES:      Absorb in paper or absorbent material and transfer to hood

WASTE DISPOSAL PROCEDURES:      Dry in hood and dispose of absorbent material as solid waste.

SECTION X      PERSONAL PROTECTION

EYE PROTECTION:      OSHA approved goggles for splash protection.

SKIN PROTECTION:      As needed to prevent prolonged skin contact.

RESPIRATORY PROTECTION:      If TLV's exceeded use NIOSH/MSHA jointly approved air supplied respirator.

VENTILATION:      Local or general to keep exposure below recommended levels

AR200905

**Manufacturer:** Xerox Corporation  
Rochester, New York 14644

**Emergency Tel. No. :** (716) 422-2177  
**Information Tel. No.:** (800) 828-6571

**Section I - Product Identification**

**Trade Names/Synonyms:** 1025/1038 Black Developer

**Part No. :** 5R142

**Chemical Name:** None

Ingredients

CAS No.

**Carrier (>95%):**  
Ferrite Powder

-----

**Toner (<5%):**  
Styrene, Acrylate Copolymer (60-65%)  
Acrylic Resin (20-25%)  
Carbon Black (10-15%)  
Polyolefin (<10%)  
Amorphous Silica (<1%)

25213-39-2

-----

7440-44-0

-----

7631-86-9

**Section II - Emergency and First Aid**

**Eyes:** Flush with water.

**Skin:** Wash with soap and water.

**Inhalation:** Remove from exposure.

**Ingestion:** Dilute stomach contents with several glasses of water.

**Primary Route of Entry:** Inhalation

**Symptoms of Overexposure:** Minimal respiratory tract irritation may occur as with exposure to large amounts of any non-toxic dust.

**Additional Information:** See Sections V and VII.  
Further information on file in Poisindex.

**Section III - Toxicology and Health Information**

*This material has been extensively tested and evaluated by Xerox Corporation. When used as intended, it does not represent any known health or safety hazard.*

**Oral LD<sub>50</sub>:** >5 g/kg (Rats) practically non-toxic.  
**Dermal LD<sub>50</sub>:** >2 g/kg (Rabbits) practically non-toxic.  
**Inhalation LC<sub>50</sub>:** >6,6 mg/l (Rats) practically non-toxic.\*  
**Eye Irritation:** (Rabbits) non-irritating  
**Skin Sensitization:** (Guinea Pigs) non-sensitizing  
**Skin Irritation:** (Rabbits) non-irritating  
**Human Patch:** non-sensitizing, non-irritating  
**Mutagenicity:** No mutagenicity detected in Ames, Pol A + /A-, WP2 and Micronucleus Assays.  
**Aquatic LC<sub>50</sub>:** >500 mg/l (fathead Minnows) non-toxic

**TLV:** 10 mg/m<sup>3</sup> (Total Dust)  
5 mg/m<sup>3</sup> (Respirable Dust)  
**PEL:** 15 mg/m<sup>3</sup> (Total Dust)  
5mg/m<sup>3</sup> (Respirable Dust)  
**<sup>1</sup>XEL:** 5 mg/m<sup>3</sup> (Total Dust)

**AR200906**

**Additional Information:** The information noted above is toxicity data for toner.

\*Not tested to the highest dose or concentration.

<sup>1</sup>XEL - Xerox Exposure Limit



### Section IV - Physical Data

Appearance/Odor: Black Granular / faint odor  
Boiling Point: N.A.  
Solubility in Water: N.A.  
Evaporation Rate: N.A.  
Vapor Density (Air = 1): N.A.  
Volatile N.A. % (Wgt.) N.A. % (Vol.)

Softening Range: N.A.  
Melting Point: N.A.  
Specific Gravity (H<sub>2</sub>O = 1): N.A.  
Vapor Pressure (mm Hg): N.A.  
pH = N.A.

### Section V - Fire and Explosion Data

Flash Point (Method Used): N.A.

Flammable Limits LEL: N.A.  
UEL: N.A.

Extinguishing Media: Water, Foam, Dry chemical

Special Fire Fighting Procedures: Avoid inhalation of smoke.

Fire and Explosion Hazards: Toner is a combustible powder. When dispersed in air, it forms explosive mixtures.

### Section VI - Reactivity Data

Stability:

Unstable	
Stable	X

Hazardous

Polymerization:

May Occur	
Will Not Occur	X

Hazardous Decomposition Products: Products of combustion are toxic. Avoid breathing smoke.

Incompatibility (Materials to Avoid): None

### Section VII - Special Protection Information

Respiratory Protection: None required when used as intended in Xerox equipment.

Eye Protection: None required when used as intended in Xerox equipment.

Protective Gloves: None required when used as intended in Xerox equipment.

Other: For use other than normal customer - operating procedures (such as in bulk toner processing facilities), goggles and respirators may be required. For more information, contact Xerox.

### Section VIII - Special Precautions

Handling and Storage: None

Conditions to Avoid: None

### Section IX - Spill, Leak, and Disposal Procedures

For Spills or Leakage: If spilled, sweep up or vacuum.

Waste Disposal Method: No special disposal procedures. Insure conformity with federal, state or local regulations.

AR200907

### Section X - Transportation Information

DOT Proper Shipping Name: Not Regulated

Hazard Classification: N.A.

ID Number: N.A.

Manufacturer: Xerox Corporation  
Rochester, New York 14644

Emergency Tel. No. : (716) 422-2177  
Information Tel. No.: (800) 828-6571

**Section I - Product Identification**

Trade Names/Synonyms: 1025/1038 Blue Developer Part No. : 5R144

Chemical Name: None

<u>Ingredients</u>	<u>CAS No.</u>
<u>Carrier (&gt;90%):</u> Ferrite Powder	-----
<u>Toner (&lt;10%):</u> Styrene, Acrylate Copolymer (45-50%)	25213-39-2
Acrylic Resin (30-40%)	-----
Blue Pigment; Phthalocyanine Derivative (<10%)	-----
Polyolefin (<5%)	-----
Tin Oxides (<5%)	-----
Magenta Pigment; Quinoacridine Derivative (<2%)	-----
Amorphous Silica (<2%)	7631-86-9

**Section II - Emergency and First Aid**

**Eyes:** Flush with water.  
**Skin:** Wash with soap and water.  
**Inhalation:** Remove from exposure.  
**Ingestion:** Dilute stomach contents with several glasses of water.  
**Primary Route of Entry:** Inhalation  
**Symptoms of Overexposure:** Minimal respiratory tract irritation may occur as with exposure to large amounts of any non-toxic dust.

**Additional Information:** See Sections V and VII.  
Further information on file in Poisindex.

**Section III - Toxicology and Health Information**

*This material has been extensively tested and evaluated by Xerox Corporation. When used as intended, it does not represent any known health or safety hazard.*

Oral LD <sub>50</sub> : >5 g/kg (Rats) practically non-toxic.	TLV: 10 mg/m <sup>3</sup> (Total Dust)
Dermal LD <sub>50</sub> : >2 g/kg (Rabbits) practically non-toxic.	5 mg/m <sup>3</sup> (Respirable Dust)
Inhalation LC <sub>50</sub> : >6.6 mg/l (Rats) practically non-toxic.*	
Eye Irritation: (Rabbits) non-irritating	PEL: 15 mg/m <sup>3</sup> (Total Dust)
Skin Sensitization: (Guinea Pigs) non-sensitizing	5mg/m <sup>3</sup> (Respirable Dust)
Skin Irritation: (Rabbits) non-irritating	
Human Patch: Non-sensitizing, non-irritating	1XEL: 5 mg/m <sup>3</sup> (Total Dust)
Mutagenicity: No mutagenicity detected in Ames and Micronucleus Assays.	
Aquatic LC <sub>50</sub> : >500 mg/l (Fathead Minnows) non-toxic	

**AR200908**

**Additional Information:** The information noted above is based on toxicity data for 6500 and 2830 Toners. \*Not tested to the highest dose or concentration.

<sup>1</sup>XEL - Xerox Exposure Limit

### Section IV - Physical Data

Appearance/Odor: Blue granular / faint odor	Softening Range: 85°C to 100°C
Boiling Point: N.A.	Melting Point: N.A.
Solubility in Water: Negligible	Specific Gravity (H <sub>2</sub> O = 1): 1
Evaporation Rate: N.A.	Vapor Pressure (mm Hg): N.A.
Vapor Density (Air = 1): N.A.	pH = N.A.
Volatile N.A. % (Wgt.) N.A. % (Vol.)	

### Section V - Fire and Explosion Data

Flash Point (Method Used): N.A.	Flammable Limits	LEL: N.A.	UEL: N.A.
---------------------------------	------------------	-----------	-----------

Extinguishing Media: Water, Foam, Dry chemical

Special Fire Fighting Procedures: Avoid inhalation of smoke.

Fire and Explosion Hazards: Toner is a combustible powder. When dispersed in air, it forms explosive mixtures.

### Section VI - Reactivity Data

Stability:	Unstable		Hazardous	May Occur	
	Stable	X	Polymerization:	Will Not Occur	X

Hazardous Decomposition Products: Products of combustion are toxic. Avoid breathing smoke.

Incompatibility (Materials to Avoid): None

### Section VII - Special Protection Information

Respiratory Protection: None required when used as intended in Xerox equipment.

Eye Protection: None required when used as intended in Xerox equipment.

Protective Gloves: None required when used as intended in Xerox equipment.

Other: For use other than normal customer - operating procedures (such as in bulk toner processing facilities), goggles and respirators may be required. For more information, contact Xerox.

### Section VIII - Special Precautions

Handling and Storage: None

Conditions to Avoid: None

### Section IX - Spill, Leak, and Disposal Procedures

For Spills or Leakage: If spilled, sweep up or vacuum.

Waste Disposal Method: No special disposal procedures. Insure conformity with federal, state or local regulations.

### Section X - Transportation Information

DOT Proper Shipping Name: Not Regulated

Hazard Classification: N.A.

ID Number: N.A.

AR200909

Manufacturer: Xerox Corporation  
Rochester, New York 14644

Emergency Tel. No. : (716) 422-2177  
Information Tel. No.: (800) 828-6571

ORIGINAL  
from

Section I - Product Identification

Trade Names/Synonyms: 1025/1038 Brown Developer Part No. : 5R146

Chemical Name: None

Ingredients	CAS No.
Carrier (>90%): Ferrite Powder (>99%)	-----
Toner (<10%): Styrene, Acrylate Copolymer (45-50%)	25213-39-2
Acrylic Resin (30-35%)	-----
Yellow Pigment: Acetylacetamide Derivative (<10%)	-----
Magenta Pigment; Quinoacridine Derivative (<5%)	-----
Polyolefin (<5%)	-----
Tin Oxides (<5%)	-----
Amorphous Silica (<1%)	7631-86-9

Section II - Emergency and First Aid

Eyes: Flush with water.  
 Skin: Wash with soap and water.  
 Inhalation: Remove from exposure.  
 Ingestion: Dilute stomach contents with several glasses of water.  
 Primary Route of Entry: Inhalation  
 Symptoms of Overexposure: Minimal respiratory tract irritation may occur as with exposure to large amounts of any non-toxic dust.

Additional Information: See Sections V and VII.  
Further information on file in Poisindex.

Section III - Toxicology and Health Information

*This material has been extensively tested and evaluated by Xerox Corporation. When used as intended, it does not represent any known health or safety hazard.*

Oral LD <sub>50</sub> : >5 g/kg (Rats) practically non-toxic.	TLV: 10 mg/m <sup>3</sup> (Total Dust)
Dermal LD <sub>50</sub> : >2 g/kg (Rabbits) practically non-toxic.	5 mg/m <sup>3</sup> (Respirable Dust)
Inhalation LC <sub>50</sub> : >5 mg/l (Rats) practically non-toxic.*	
Eye Irritation: (Rabbits) non-irritating	PEL: 15 mg/m <sup>3</sup> (Total Dust)
Skin Sensitization: (Guinea Pigs) non-sensitizing	5mg/m <sup>3</sup> (Respirable Dust)
Skin Irritation: (Rabbits) non-irritating	
Human Patch: Non-irritating, non-sensitizing	1XEL: 5 mg/m <sup>3</sup> (Total Dust)
Mutagenicity: No mutagenicity detected in Ames and Micronucleus Assays.	
Aquatic LC <sub>50</sub> : >500 mg/l (Fathead Minnows) non-toxic	

AR200910

Additional Information: The information noted above is based on toxicity data for 6500 and 2830 Toners. \*Not tested to the highest dose or concentration.

1XEL - Xerox Exposure Limit

### Section IV - Physical Data

Appearance/Odor: Brown granular / faint odor	Softening Range: N.A.
Boiling Point: N.A.	Melting Point: N.A.
Solubility in Water: N.A.	Specific Gravity (H <sub>2</sub> O = 1): N.A.
Evaporation Rate: N.A.	Vapor Pressure (mm Hg): N.A.
Vapor Density (Air = 1): N.A.	pH = N.A.
Volatile N.A. % (Wgt.) N.A. % (Vol.)	

### Section V - Fire and Explosion Data

Flash Point (Method Used): N.A.	Flammable Limits: N.A.
Extinguishing Media: Water, Foam, Dry chemical	LEL: N.A.
Special Fire Fighting Procedures: Avoid inhalation of smoke.	UEL: N.A.
Fire and Explosion Hazards: Toner is a combustible powder. When dispersed in air, it forms explosive mixtures.	

### Section VI - Reactivity Data

Stability:	Unstable		Hazardous	May Occur	
	Stable	X	Polymerization:	Will Not Occur	X

Hazardous Decomposition Products: Products of combustion are toxic. Avoid breathing smoke.

Incompatibility (Materials to Avoid): None

### Section VII - Special Protection Information

Respiratory Protection: None required when used as intended in Xerox equipment.

Eye Protection: None required when used as intended in Xerox equipment.

Protective Gloves: None required when used as intended in Xerox equipment.

Other: For use other than normal customer - operating procedures (such as in bulk toner processing facilities), goggles and respirators may be required. For more information, contact Xerox.

### Section VIII - Special Precautions

Handling and Storage: None

Conditions to Avoid: None

### Section IX - Spill, Leak, and Disposal Procedures

For Spills or Leakage: If spilled, sweep up or vacuum.

Waste Disposal Method: No special disposal procedures. Insure conformity with federal, state or local regulations.

AR200911

### Section X - Transportation Information

DOT Proper Shipping Name: Not Regulated

Hazard Classification: N.A.

ID Number: N.A.

**Manufacturer:** Xerox Corporation  
Rochester, New York 14644

**Emergency Tel. No. :** (716) 422-2177  
**Information Tel. No.:** (800) 828-6571

**Section I - Product Identification**

**Trade Names/Synonyms:** 1025/1038 Green Developer      **Part No. :** 5R145

**Chemical Name:** None

<u>Ingredients</u>	<u>CAS No.</u>
<u>Carrier (&gt;90%):</u> Ferrite Powder	-----
<u>Toner (&lt;10%)</u> Styrene, Acrylate Copolymer (60-65%)	25213-39-2
Acrylic Resin (20-25%)	-----
Polyolefin (<10%)	-----
Blue Pigment; Phthalocyanine Derivative (<5%)	-----
Yellow Pigment; Acetylacetamide Derivative (<5%)	-----
Amorphous Silica (<1%)	7831-86-7

**Section II - Emergency and First Aid**

**Eyes:** Flush with water.  
**Skin:** Wash with soap and water.  
**Inhalation:** Remove from exposure.  
**Ingestion:** Dilute stomach contents with several glasses of water.  
**Primary Route of Entry:** Inhalation  
**Symptoms of Overexposure:** Minimal respiratory tract irritation may occur as with exposure to large amounts of any non-toxic dust.

**Additional Information:** See Sections V and VII.  
Further information on file in Poisindex.

**Section III - Toxicology and Health Information**

*This material has been extensively tested and evaluated by Xerox Corporation. When used as intended, it does not represent any known health or safety hazard.*

<b>Oral LD<sub>50</sub>:</b> > 5 g/kg (Rats) practically non-toxic.	<b>TLV:</b> 10 mg/m <sup>3</sup> (Total Dust)
<b>Dermal LD<sub>50</sub>:</b> > 2 g/kg (Rabbits) practically non-toxic.	5 mg/m <sup>3</sup> (Respirable Dust)
<b>Inhalation LC<sub>50</sub>:</b> > 5 mg/l (Rats) practically non-toxic.*	
<b>Eye Irritation:</b> (Rabbits) non-irritating	<b>PEL:</b> 15 mg/m <sup>3</sup> (Total Dust)
<b>Skin Sensitization:</b> (Guinea Pigs) non-sensitizing	5mg/m <sup>3</sup> (Respirable Dust)
<b>Skin Irritation:</b> (Rabbits) non-irritating	
<b>Human Patch:</b> Non-irritating, non-sensitizing	<b>1XEL:</b> 5 mg/m <sup>3</sup> (Total Dust)
<b>Mutagenicity:</b> No mutagenicity detected in Ames and Micronucleus Assays.	<b>AR200912</b>
<b>Aquatic LC<sub>50</sub>:</b> > 500 mg/l (Fathead Minnows) non-toxic	

**Additional Information:** The information noted above is based on toxicity data for 6500 and 2830 Toners..\*Not tested to the highest dose or concentration.

<sup>1</sup>XEL - Xerox Exposure Limit

### Section IV - Physical Data

Appearance/Odor: Green granular / faint odor  
 Boiling Point: N.A.  
 Solubility in Water: N.A.  
 Evaporation Rate: N.A.  
 Vapor Density (Air = 1): N.A.  
 Volatile N.A. % (Wgt.) N.A. % (Vol.)

Softening Range: N.A.  
 Melting Point: N.A.  
 Specific Gravity (H<sub>2</sub>O = 1): N.A.  
 Vapor Pressure (mm Hg): N.A.  
 pH = N.A.

### Section V - Fire and Explosion Data

Flash Point (Method Used): N.A. Flammable Limits LEL: N.A. UEL: N.A.

Extinguishing Media: Water, Foam, Dry chemical

Special Fire Fighting Procedures: Avoid inhalation of smoke.

Fire and Explosion Hazards: Toner is a combustible powder. When dispersed in air, it forms explosive mixtures.

### Section VI - Reactivity Data

Stability:	Unstable		Hazardous Polymerization:	May Occur	
	Stable	X		Will Not Occur	X

Hazardous Decomposition Products: Products of combustion are toxic. Avoid breathing smoke.

Incompatibility (Materials to Avoid): None

### Section VII - Special Protection Information

Respiratory Protection: None required when used as intended in Xerox equipment.  
 Eye Protection: None required when used as intended in Xerox equipment.  
 Protective Gloves: None required when used as intended in Xerox equipment.  
 Other: For use other than normal customer - operating procedures (such as in bulk toner processing facilities), goggles and respirators may be required. For more information, contact Xerox.

### Section VIII - Special Precautions

Handling and Storage: None

Conditions to Avoid: None

### Section IX - Spill, Leak, and Disposal Procedures

For Spills or Leakage: If spilled, sweep up or vacuum.

Waste Disposal Method: No special disposal procedures. Insure conformity with federal, state or local regulations.

AR200913

### Section X - Transportation Information

DOT Proper Shipping Name: Not Regulated  
 Hazard Classification: N.A. ID Number: N.A.

Manufacturer: Xerox Corporation  
 Rochester, New York 14644  
 Emergency Tel. No. : (716) 422-2177  
 Information Tel. No.: (800) 828-6571

**Section I - Product Identification**

Trade Names/Synonyms: 1025/1038 Red Developer Part No. : 5R143

Chemical Name: None

<u>Ingredients</u>	<u>CAS No.</u>
<u>Carrier (&gt;90%):</u> Ferrite Powder	-----
<u>Toner (&lt;10%):</u> Styrene, Acrylate Copolymer (60-65%)	25213-39-2
Acrylic Resin (25-30%)	-----
Red Pigment; Barium Salt (<10%)	-----
Polyolefin (<5%)	-----
Magenta Pigment; Quinacridine Derivative (<1%)	7631-86-9
Amorphous Silica (<1%)	-----

**Section II - Emergency and First Aid**

Eyes: Flush with water.  
 Skin: Wash with soap and water.  
 Inhalation: Remove from exposure.  
 Ingestion: Dilute stomach contents with several glasses of water.  
 Primary Route of Entry: Inhalation  
 Symptoms of Overexposure: Minimal respiratory tract irritation may occur as with exposure to large amounts of any non-toxic dust.

Additional Information: See Sections V and VII.  
 Further information on file in Poisindex.

**Section III - Toxicology and Health Information**

*This material has been extensively tested and evaluated by Xerox Corporation. When used as intended, it does not represent any known health or safety hazard.*

Oral LD <sub>50</sub> : >5 g/kg (Rats) practically non-toxic.	TLV: 10 mg/m <sup>3</sup> (Total Dust)
Dermal LD <sub>50</sub> : >2 g/kg (Rabbits) practically non-toxic.	5 mg/m <sup>3</sup> (Respirable Dust)
Inhalation LC <sub>50</sub> : >5 mg/l (Rats) practically non-toxic.*	
Eye Irritation: (Rabbits) non-irritating	PEL: 15 mg/m <sup>3</sup> (Total Dust)
Skin Sensitization: (Guinea Pigs) non-sensitizing	5mg/m <sup>3</sup> (Respirable Dust)
Skin Irritation: (Rabbits) non-irritating	
Human Patch: Non-irritating, non-sensitizing,	1XEL: 5 mg/m <sup>3</sup> (Total Dust)
Mutagenicity: No mutagenicity detected in Ames and Micronucleus Assays.	
Aquatic LC <sub>50</sub> : >500 mg/l (Fathead Minnows) non-toxic	

AR200914

Additional Information: The information noted above is based on toxicity data for 6500 and 2830 Toners. \*Not tested to the highest dose or concentration.

<sup>1</sup>XEL - Xerox Exposure Limit



**Section IV - Physical Data**

Appearance/Odor: Red granular / faint odor  
 Boiling Point: N.A.  
 Solubility in Water: N.A.  
 Evaporation Rate: N.A.  
 Vapor Density (Air = 1): N.A.  
 Volatile N.A. % (Wgt.) N.A. % (Vol.)

Softening Range: N.A.  
 Melting Point: N.A.  
 Specific Gravity (H<sub>2</sub>O = 1): N.A.  
 Vapor Pressure (mm Hg): N.A.  
 pH = N.A.

**Section V - Fire and Explosion Data**

Flash Point (Method Used): N.A.

Flammable Limits LEL: N.A.  
 UEL: N.A.

Extinguishing Media: Water, Foam, Dry chemical

Special Fire Fighting Procedures: Avoid inhalation of smoke.

Fire and Explosion Hazards: Toner is a combustible powder. When dispersed in air, it forms explosive mixtures.

**Section VI - Reactivity Data**

Stability:

Unstable	
Stable	X

Hazardous

Polymerization:

May Occur	
Will Not Occur	X

Hazardous Decomposition Products: Products of combustion are toxic. Avoid breathing smoke.

Incompatibility (Materials to Avoid): None

**Section VII - Special Protection Information**

Respiratory Protection: None required when used as intended in Xerox equipment.

Eye Protection: None required when used as intended in Xerox equipment.

Protective Gloves: None required when used as intended in Xerox equipment.

Other: For use other than normal customer - operating procedures (such as in bulk toner processing facilities), goggles and respirators may be required. For more information, contact Xerox.

**Section VIII - Special Precautions**

Handling and Storage: None

Conditions to Avoid: None

**Section IX - Spill, Leak, and Disposal Procedures**

For Spills or Leakage: If spilled, sweep up or vacuum.

Waste Disposal Method: No special disposal procedures. Insure conformity with federal, state or local regulations.

AR200915

**Section X - Transportation Information**

DOT Proper Shipping Name: Not Regulated

Hazard Classification: N.A.

ID Number: N.A.

# Material Safety Data Sheet

QUICK IDENTIFIER (in Plant Common Name)

Fast Draw

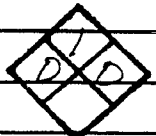
Manufacturer's Name	Blackburn	Emergency Telephone No.	314-993-9430
Address	1525 Woodson Road St. Louis, Mo. 63114	Other Information Calls	314-993-9430
Signature of Person Responsible for Preparation	<i>James T. Reschaw, Jr.</i>	Date Prepared	February 1986

## SECTION 1 - IDENTITY

Common Name: (used on label) (Trade Name & Synonyms)	Fast Draw Wire Lube	Cas No.	N/A
Chemical Name	N/A	Chemical Family	N/A
Formula	Modified Wax and Water		

## SECTION 2 - HAZARDOUS INGREDIENTS

Principal Hazardous Component(s) (chemical & common name(s))	%	Threshold Limit Value (toxic)
N/A		



PPE A  
UN 7A

## SECTION 3 - PHYSICAL & CHEMICAL CHARACTERISTICS (Fire & Explosion Data)

Boiling Point	N/A	Specific Gravity (H <sub>2</sub> O=1)	1.125	Vapor Pressure (mm Hg)	N/A
Percent Volatile by Volume (%)	18%	Vapor Density (Air = 1)	N/A	Evaporation Rate (H <sub>2</sub> O = 1)	Slightly Less Than H <sub>2</sub> O
Solubility in Water	Miscible	Reactivity in Water	N/A		
Appearance and Odor	Medium Yellow, Creamy -- Practically Odorless				

Flash Point	Open Cup	Flammable Limits in Air % by Volume	Lower 365° - Upper 370°	Extinguisher	N/A	Auto-Ignition Temperature	N/A
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Special Fire Fighting Procedures: None Except H<sub>2</sub>O Not Recommended

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Unusual Fire and Explosion Hazards: None

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**SECTION 4 - PHYSICAL HAZARDS**

Stability  Unstable  Stable  Conditions to Avoid  **N/A**

Incompatibility (Materials to Avoid) **None Known**

Hazardous Decomposition Products **None**

Hazardous Polymerization  May Occur  Will Not Occur  Conditions to Avoid  **N/A**

**SECTION 5 - HEALTH HAZARDS**

Threshold Limit Value **None Known**

Signs and Symptoms of Exposure **1. Acute Overexposure** **None Known**

**2. Chronic Overexposure** **None Known**

Medical Conditions Generally Aggravated by Exposure **None Known**

Chemical Listed as Carcinogen or Potential Carcinogen **No** National Toxicology Program  Yes  No I.A.R.C. Monographs  Yes  No OSHA  Yes  No

OSHA Permissible Exposure Limit **Not Known** ACGIH Threshold Limit Value **Not Known** Other Exposure Limit Used **None**

Emergency and First Aid Procedures **See Below**

1. Inhalation **Should not apply**

2. Eye **Wash with water for 15 minutes. Seek medical attention if needed.**

3. Skin **Skin contact should not cause irritation. Slight skin absorption. Wash with warm water.**

4. Ingestion **Treat as with other petroleum products. Do not induce vomiting. Get medical attention.**

**SECTION 6 - SPECIAL PROTECTION INFORMATION**

Respiratory Protection (Specify Type) **None**

Ventilation **N/A** Local Exhaust **N/A** Mechanical (General) **N/A** Special **N/A** Other **N/A**

Protective Gloves **Not generally needed** Eye Protection **Not generally needed**

Other Protective Clothing or Equipment **None**

**SECTION 7 - SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES**

Precautions to be Taken in Handling and Storage **Store in cool place, avoid freezing and thawing. These are precautions to avoid breaking the emulsion and not because of any hazard.**

Other Precautions **Not for human or animal consumption.**

Steps to be Taken in Case Material is Released or Spilled **Wash with hot water**

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Waste Disposal Methods **Dispose as with oil**

**IMPORTANT**

Do not leave any blank spaces. If required information is unavailable, unknown, or does not apply, so indicate.



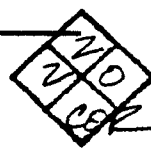
# MATERIAL SAFETY DATA SHEET

PRODUCT FIRE-PREP 8256 MICROBIOCIDE

Emergency Telephone Number  
Medical (312) 920-1510 (24 hours)

## SECTION 1 PRODUCT IDENTIFICATION

TRADE NAME: FIRE-PREP 8256 MICROBIOCIDE  
DESCRIPTION: A hydrocarbon solution containing a formaldehyde aliphatic amine condensation product



NFPA 704M RATING 3 HEALTH 2 FLAMMABILITY 0 REACTIVITY 0 OTHER  
0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

PPE D  
UN 1760

## SECTION 2 HAZARDOUS INGREDIENTS

Our hazard evaluation has identified the following chemical ingredient(s) as hazardous. One or more is being claimed as a trade secret under OSHA's Hazard Communication Rule, 29 CFR 1910.1200. Consult Section 14 for the nature of the hazard(s).

INGREDIENT(S)	CAS #	APPROX.%
Heavy aromatic naphtha	64742-94-5	30
Proprietary chemical	Proprietary	20

## SECTION 3 PRECAUTIONARY LABEL INFORMATION

**DANGER:** Harmful if swallowed, inhaled, or absorbed through the skin. Causes severe eye and skin damage. Do not get in eyes, on skin, or on clothing. Wear goggles or face shield and rubber gloves when handling. Keep away from heat and open flame. Keep container closed when not in use. Avoid breathing of vapor. Use with adequate ventilation. Do not take internally.

Empty containers may contain residual product. Do not reuse container unless properly reconditioned.

## SECTION 4 FIRST AID INFORMATION

**EYES:** Immediately flush for at least 15 minutes while holding eyelids open. Call a physician at once.

**SKIN:** Immediately flush with water for at least 15 minutes. For a large splash, flood body under a shower. Call a physician at once.

**INGESTION:** Do not induce vomiting. Give water. Call a physician at once.

**INHALATION:** Remove to fresh air. Treat symptoms. Call a physician at once.

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NOTE TO PHYSICIAN: No specific antidote is known. Based on the

# MATERIAL SAFETY DATA SHEET



PRODUCT FIRE-PREP 8256 MICROBIOCIDE

Emergency Telephone Number  
Medical (312) 920-1510 (24 hours)

## SECTION 4 FIRST AID INFORMATION

( CONTINUED )

individual reactions of the patient, the physician's judgment should be used to control symptoms and clinical condition.

CAUTION: If unconscious, having trouble breathing or in convulsions, do not induce vomiting or give water.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsions may be needed.

## SECTION 5 HEALTH EFFECTS INFORMATION

PRIMARY ROUTE(S) OF EXPOSURE: Eye, Skin, Inhalation

EYE CONTACT: Corrosive to the eyes with possible permanent damage depending on the length of exposure and on the first aid action given.

SKIN CONTACT: Corrosive to the skin, possibly resulting in third degree burns depending on the length of exposure and on the first aid action given.

INGESTION: Can be fatal.

INHALATION: Prolonged inhalation of vapor may be harmful.

SYMPTOMS OF EXPOSURE: A review of available data does not identify any symptoms from exposure.

AGGRAVATION OF EXISTING CONDITIONS: A review of available data does not identify any worsening of existing conditions.

## SECTION 6 TOXICOLOGY INFORMATION

ACUTE TOXICITY STUDIES: Acute toxicity studies have been conducted on this product. The results are shown below.

ACUTE ORAL TOXICITY (ALBINO RATS): LD<sub>50</sub> = 2,500 mg/kg

95% Confidence Limit = Plus or minus 400 mg/kg

ACUTE DERMAL TOXICITY (ALBINO RABBITS): LD<sub>50</sub> = 5,600 mg/kg

COMMENTS: Severe local skin reactions noted including severe edema and subdermal hemorrhage leading to necrosis.

ACUTE INHALATION TOXICITY (ALBINO RATS): LC<sub>50</sub> = Greater than 2.0 mg/l

AR200919



# MATERIAL SAFETY DATA SHEET

PRODUCT FIRE-PREP 8256 MICROBIOCIDAL

Emergency Telephone Number  
Medical (312) 920-1510 (24 hours)

## SECTION 6 TOXICOLOGY INFORMATION

( CONTINUED )

COMMENTS: 4-hour vapor exposure, nominal concentration

PRIMARY SKIN IRRITATION TEST (ALBINO RABBITS):

SKIN IRRITATION INDEX DRAIZE RATING: 8.0/8.0 Extremely irritating

COMMENTS: Corrosive material

PRIMARY EYE IRRITATION TEST (ALBINO RABBITS):

EYE IRRITATION INDEX DRAIZE RATING: 94/110.0 Extremely irritating

## SECTION 7 PHYSICAL AND CHEMICAL PROPERTIES

COLOR: Clear amber	FORM: Liquid	ODOR: Hydrocarbon
SOLUBILITY IN WATER:	Insoluble	
SPECIFIC GRAVITY:	0.92 @ 60 Degrees F	
VISCOSITY:	106 cts/97 cps/489 SUS @ 60 Degrees F	ASTM D-445
POUR POINT:	Less than -22 Degrees F	ASTM D-97
FLASH POINT:	151 Degrees F (PMCC)	ASTM D-93
PERCENT VOLATILE:	2 @ 75 Degrees F	ASTM D-323

NOTE: These physical properties are typical values for this product.

## SECTION 8 FIRE AND EXPLOSION INFORMATION

FLASH POINT: 151 Degrees F (PMCC) ASTM D-56

EXTINGUISHING MEDIA: Based on the NFPA guide, use dry chemical, alcohol foam, carbon dioxide or other extinguishing agent suitable for Class B fires. Use water to cool containers exposed to fire. For large fires, use water spray or fog, thoroughly drenching the burning material.

UNUSUAL FIRE AND EXPLOSION HAZARD: Containers exposed in a fire should be cooled with water to prevent vapor pressure buildup leading to a rupture.

## SECTION 9 REACTIVITY INFORMATION

INCOMPATIBILITY: Avoid contact with strong oxidizers (eg. chlorine, peroxides, chromates, nitric acid, perchlorates, concentrated oxygen permanganates) which can generate heat, fires, explosions and the release of toxic fumes.

AR200920



# MATERIAL SAFETY DATA SHEET

PRODUCT FIRE-PREP 8256 MICROBIOCIDAL

Emergency Telephone Number  
Medical (312) 920-1510 (24 hours)

## SECTION 9 REACTIVITY INFORMATION

( CONTINUED )

**THERMAL DECOMPOSITION PRODUCTS:** In the event of combustion CO, CO<sub>2</sub>, NO<sub>x</sub>, may be formed. Do not breathe smoke or fumes. Wear suitable protective equipment.

## SECTION 10 PERSONAL PROTECTION EQUIPMENT

**RESPIRATORY PROTECTION:** If it is possible to generate significant levels of vapors or mists, a NIOSH approved or equivalent respirator is recommended.

For large spills, entry into large tanks, vessels or enclosed small spaces with inadequate ventilation, a pressure-demand, self-contained breathing apparatus is recommended.

**VENTILATION:** General ventilation is recommended. Additionally, local exhaust ventilation is recommended where vapors, mists or aerosols may be released.

**PROTECTIVE EQUIPMENT:** Wear gloves, boots, apron and a face shield with chemical splash goggles (ANSI Z 87.1 requirements and selection of gloves, goggles, shoes, etc.). A full slicker suit is recommended if gross exposure is possible.

The availability of an eye wash fountain and safety shower is recommended.

If clothing is contaminated, remove clothing and thoroughly wash the affected area. Launder contaminated clothing before reuse. Discard contaminated shoes and leather items.

## SECTION 11 SPILL AND DISPOSAL INFORMATION

IN CASE OF TRANSPORTATION ACCIDENTS, CALL THE FOLLOWING 24-HOUR TELEPHONE NUMBER (312-920-1510)

### SPILL CONTROL AND RECOVERY:

**Small liquid spills:** Contain with absorbent material, such as saw dust, clay, soil or any commercially available absorbent. Shovel reclaimed liquid and absorbent into recovery or salvage drums for disposal. Refer to CERCLA in Section 14.

**Large liquid spills:** Dike to prevent further movement and reclaim into

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# MATERIAL SAFETY DATA SHEET

PRODUCT FIRE-PREP 8256 MICROBIOCIDICIDE

Emergency Telephone Number  
Medical (312) 920-1510 (24 hours)

## SECTION 11 SPILL AND DISPOSAL INFORMATION

( CONTINUED )

recovery or salvage drums or tank truck for disposal. Refer to CERCLA in Section 14.

For large indoor spills, evacuate employees and ventilate area. Those responsible for control and recovery should wear the protective equipment specified in Section 10.

DISPOSAL: If this product becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, (i.e. D001 through D017) nor is it listed under Subpart D.

As a non-hazardous liquid waste, it should be solidified before disposal to a sanitary landfill. Can be incinerated in accordance with local, state and federal regulations.

## SECTION 12 ENVIRONMENTAL INFORMATION

### AQUATIC DATA:

96-hour static acute LC<sub>50</sub> to Bluegill Sunfish = 1.09 ppm

95% Confidence Limit of 96 hour LC<sub>50</sub> = 0.93 - 1.24 ppm

TOXICITY RATING: Toxic

96-hour static acute LC<sub>50</sub> to Rainbow Trout = 1.17 ppm

TOXICITY RATING: Toxic

### OTHER STUDIES:

8-day dietary LC<sub>50</sub> - Bobwhite Quail = Greater than 5,000 ppm

8-day dietary LC<sub>50</sub> - Mallard Ducks = Greater than 5,000 ppm

If released into the environment, see CERCLA in Section 14.

## SECTION 13 TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME/HAZARD CODE - CORROSIVE LIQUID, N.O.S. UN 1760  
CONTAINS - ORGANIC AMINE COMPOUND

## SECTION 14 REGULATORY INFORMATION

The following regulations apply to this product.

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# MATERIAL SAFETY DATA SHEET



PRODUCT FIRE-PREP 8256 MICROBIOCID

Emergency Telephone Number  
Medical (312) 920-1510 (24 hours)

## SECTION 14 REGULATORY INFORMATION

( CONTINUED )

### FEDERAL REGULATIONS:

#### OSHA'S HAZARD COMMUNICATION RULE, 29 CFR 1910.1200:

Based on our hazard evaluation, the following ingredients in this product are hazardous and the reasons are shown below.

OSHA  
(red)

Heavy aromatic naphtha - Irritant, combustible  
Proprietary chemical - Corrosive

Heavy aromatic solvent = 100 ppm TLV  
Manufacturer's recommendation

#### CERCLA/SUPERFUND, 40 CFR 117, 302:

Notification of spills of this product is not required.

#### TOXIC SUBSTANCES CONTROL ACT (TSCA):

This product is registered under FIFRA. The inerts are on the inventory and the active is exempted.

#### FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT (FIFRA):

EPA Reg. No. 1706-101A.

This product is registered for use as a microorganism control chemical used in distillate fuel oil treatment. In all cases follow instructions on the product label.

#### RESOURCE CONSERVATION AND RECOVERY ACT (RCRA), 40 CFR 261 SUBPART C & D:

If this product becomes a waste, it does not meet the criteria of a hazardous waste.

#### FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15

(formerly Sec. 307), 40 CFR 116 (formerly Sec. 311):

None of the ingredients are specifically listed.

#### CLEAN AIR ACT, 40 CFR 60, SECTION 111, 40 CFR 61, SECTION 112:

This product does not contain ingredients covered by the Clean Air Act.

### STATE REGULATIONS:

#### MICHIGAN CRITICAL MATERIALS:

This product does not contain ingredients listed on the Michigan Critical Materials Register.

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# MATERIAL SAFETY DATA SHEET

PRODUCT FIRE-PREP 8256 MICROBIOCIDE

Emergency Telephone Number  
Medical (312) 920-1510 (24 hours)

## SECTION 14 REGULATORY INFORMATION

( CONTINUED )

### STATE RIGHT TO KNOW LAWS:

This product does not contain ingredients listed by State Right To Know Laws.

## SECTION 15 ADDITIONAL INFORMATION

None

## SECTION 16 USER'S RESPONSIBILITY

This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to ensure safe workplace operations. Please consult your local sales representative for any further information.

## SECTION 17 BIBLIOGRAPHY

ANNUAL REPORT ON CARCINOGENS, U.S. Department of Health and Human Services, Public Health Service, PB 33-135855, 1983.

CASARETT AND DOULL'S TOXICOLOGY, THE BASIC SCIENCE OF POISONS, Doull, J., Klaassen, C. D., and Admur, M. O., eds., Macmillian Publishing Company, Inc., N. Y., 2nd edition, 1980.

CHEMICAL HAZARDS OF THE WORKPLACE, Proctor, N. H., and Hughes, J. P., eds., J. P. Lipincott Company, N.Y., 1981.

DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS, Sax, N. Irving, ed., Van Nostrand Reinhold Company, N.Y., 6th edition, 1984.

IARC MONOGRAPHS ON THE EVALUATION OF THE CARCINOGENIC RISK OF CHEMICALS TO MAN, Geneva: World Health Organization, International Agency for Research on Cancer, 1972-1977.

PATTY'S INDUSTRIAL HYGIENE AND TOXICOLOGY, Clayton, G. D., Clayton, F. E., eds., John Wiley and Sons, N. Y., 3rd edition, Vol. 2 A-C, 1981.

REGISTRY OF TOXIC EFFECTS ON CHEMICAL SUBSTANCES, U.S. Department of Health and Human Services, Public Health Service, Center for Disease Control, National Institute for Occupational Safety and Health, 1983

AR200924

# MATERIAL SAFETY DATA SHEET



PRODUCT FIRE-PREP 8256 MICROBIOCID

Emergency Telephone Number

Medical (312) 920-1510 (24 hours)

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## SECTION 17 BIBLIOGRAPHY

( CONTINUED )

supplement of 1981-1982 edition, Vol. 1-3, OH, 1984.

Title 29 Code of Federal Regulations Part 1910, Subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration (OSHA).

THRESHOLD LIMIT VALUES FOR CHEMICAL SUBSTANCES AND PHYSICAL AGENTS IN THE WORKROOM ENVIRONMENT WITH INTENDED CHANGES, American Conference of Governmental Industrial Hygienists, OH.

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PREPARED BY: John J. Kasper, MSc., Manager Product Safety

DATE CHANGED: 06/19/86

DATE PRINTED: 09/29/86

AR200925



PPE  
UN A  
N/A

**U.S. Department of Labor  
Occupational Safety & Health Administration (OSHA)  
MATERIAL SAFETY DATA SHEET**

PRODUCT TYPE:	Electronic Degreasers			Flux Removers
Trade Name & Synonyms:	Electro Wash	Freon TF	Flux-Off	Flux-Off NR
Chemical Family:	Halogenated hydrocarbon solvents, propellant	Halogenated hydrocarbon solvent, propellant	Halogenated hydrocarbon solvents, propellant	Halogenated hydrocarbon solvent, aliphatic alcohol, inhibitor, propellant
<b>Section II INGREDIENTS</b>	Trichlorofluoromethane Trichlorotrifluoroethane (97%) TLV 1000 PPM Carbon Dioxide (3%) TLV 5000 PPM	Trichlorotrifluoroethane (97%) TLV 1000 PPM Carbon Dioxide (3%) TLV 5000 PPM	Trichlorotrifluoroethane (48.5%) TLV 1000 PPM Methylene Chloride (48.5%) TLV 500 PPM Carbon Dioxide (3%) TLV 5000 PPM	Trichlorotrifluoroethane (91.5%) TLV 1000 PPM Methyl Alcohol (5.3%) TLV 200 Carbon Dioxide (3%) TLV 5000 Nitromethane (0.2%) TLV 100 (gallons only)
<b>Section III PHYSICAL DATA OF SOLVENT SYSTEM</b>				
Boiling Point Range (°F)	75 - 118	116 - 118	96 - 98	103 - 105
Water Solubility	0.08%	0.02%	about 0.1%	0.1%
Specific Gravity (H <sub>2</sub> O = 1)	1.46 @ 77°F	1.57 @ 77°F	1.42 @ 77°F	1.52 @ 77°F
Percent Volatile	100	100	100	100
Appearance	Colorless liquid	Colorless liquid	Colorless liquid	Colorless liquid
Odor	Slight ethereal odor	Slight ethereal odor	Slight ethereal odor	Slight ethereal odor
<b>Section IV FIRE &amp; EXPLOSION HAZARD DATA</b>				
Flash Point	None	None	None	None
Extinguishing Media	Non-flammable	Non-flammable	Non-flammable	Non-flammable
Unusual Fire & Explosive Hazards	Self contained breathing apparatus and protective clothing should be worn in fighting fires when chemicals are present. At flame temperatures (above 400°F) decomposition products are extremely toxic. Aerosol can will not withstand temperatures above 120°F - explosion and resulting damage will occur.			
				<b>Danger Poison:</b> Contains Methanol May be fatal or cause blindness if swallowed. Cannot be made non-poisonous. Antidote: If swallowed, do not induce vomiting. Have patient lie down and keep warm. Cover eyes to exclude light. Call a physician immediately.
<b>Section V HEALTH HAZARD DATA</b>				
Threshold Limit Value (TLV)	1000 PPM	1000 PPM	500 PPM	700 PPM
Effects of Over Exposure	Light headedness, giddiness, shortness of breath, possible narcosis, possible cardiac arrhythmias at high concentrations.			
First Aid Procedures	Inhalation: Remove to fresh air. Do not give epinephrine or similar drugs. If necessary, call a physician. Skin or eye contact: Flush with water that is not hot or too cold. If necessary, call a physician.			
<b>Section VI REACTIVITY DATA</b>				
Incompatibility	Avoid open flames and high temperatures: 120°F for aerosols, 400°F for solvent spray and liquid. Avoid contact with alkali and alkaline earth metals including powdered aluminum, beryllium and zinc.			
Hazardous Decomposition Products	Hydrochloric and hydrofluoric acids, also possible carbonyl halides.			Addition of excess water (over 0.2%) will extract alcohol and may form a flammable supernatant liquid layer
<b>Section VII SPILL OR LEAK PROCEDURES</b>				
Steps to be taken	Ventilate area especially low places where heavy vapor might collect. Remove open flames and hot (120°F) objects.			
Waste Disposal Method	Exhaust aerosol can contents to atmosphere at a rate that the TLV is not exceeded. Chemtronics recommends that all local, state and federal regulations concerning health and pollution be reviewed to determine approved disposal procedures.			
<b>Section VIII SPECIAL PROTECTION INFORMATION</b>				
Respiratory Protection	Avoid breathing mist during spray applications. Use approved respiratory protection such as an air supplied mask or MSHA/NIOSH approved organic type respirator in absence or proper environmental control, or when used in an enclosed space, or when high concentrations are present.			
<b>Section IX SPECIAL PRECAUTION</b>				
Handling and Storing	Safety glasses or goggles are required. A safety shower and eye wash station should be present for all industrial chemical applications.			
Other Precautions	Do not store where temperatures might exceed 120°F Use with adequate ventilation (equivalent to outdoors). Do not use where open flames, heating elements, or other hot objects (above 400°F) are present. Do not ingest. Do not eat, drink or smoke where vapors are present. Keep out of the reach of children.			

AR200926

Chemtronics

PPE  
UN 2851



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CHEMTRONICS INC. 661 Old Willets Path, Hauppauge, N.Y. 11788 (516) 582-3322

APR 14 1987 ORIGINAL (Red)

U.S. Department of Labor  
Occupational Safety & Health Administration (OSHA)  
MATERIAL SAFETY DATA SHEET

C. MURAWICZYK

PRODUCT TYPE:

FREON TP-35

Circuit Refrigerants

Trade Name & Synonyms:

[Redacted]

Freez-it Anti-Stat®

Component Cooler

Chemical Family:  
Section II  
INGREDIENTS

Halogenated Hydrocarbon

Halogenated Hydrocarbon

Halogenated Hydrocarbon(s)

Dichlorodifluoromethane (100%) TLV 1000

Dichlorodifluoromethane (100%) TLV 1000

Dichlorodifluoromethane (70%) TLV 1000  
Trichlorofluoromethane (30%) TLV 1000

Section III  
PHYSICAL DATA OF  
SOLVENT SYSTEM

Boiling Point Range (°F)  
Water Solubility  
Specific Gravity (H<sub>2</sub>O = 1)  
Percent Volatile  
Appearance  
Odor

-21.6  
0.01%  
1.31 @ 77°F  
100  
Colorless liquid  
Slightly ethereal odor

-21.6  
0.01%  
1.31 @ 77°F  
100  
Colorless liquid  
Slightly ethereal odor

-21.6-70  
0.01%  
1.36 @ 77°F  
100  
Colorless liquid  
Slightly ethereal odor

Section IV  
FIRE & EXPLOSION  
HAZARD DATA

Flash Point  
Extinguishing Media

None  
Non-flammable

None  
Non-flammable

None  
Non-flammable

Unusual Fire & Explosive Hazards

Self contained breathing apparatus should be worn in fighting fire where chemicals are present. At flame temperatures (above 400°F) decomposition products are extremely toxic. Aerosol cans will not withstand temperatures above 120°F-explosion and resulting damage will occur.

Section V  
HEALTH HAZARD DATA

Threshold Limit Value (TLV)  
Effects of Over Exposure

1000 PPM

1000 PPM

1000 PPM

Light headedness, giddiness, shortness of breath, possible narcosis, possible cardiac arrhythmias at high concentrations.

(Skin) Can cause frostbite. (Eye) Can cause frostbite.

First Aid Procedures

Inhalation: Remove to fresh air. Do not give epinephrine or similar drugs. If necessary, call a physician. Skin or eye contact: Flush with water that is not hot or too cold. If necessary, call a physician.

Section VI  
REACTIVITY DATA

Incompatibility

Avoid open flames and high temperatures - 120°F for aerosols, 400°F for solvent spray and liquid. Avoid contact with alkali and alkaline earth metals including powdered aluminum, beryllium and zinc. Hydrochloric and hydrofluoric acids, also possible carbonyl halides.

Section VII  
SPILL OR LEAK  
PROCEDURES

Steps to be taken  
Waste Disposal Method

Ventilate area especially low places where heavy vapor might collect. Remove open flames and hot (120°F) objects. Exhaust aerosol can contents to atmosphere at a rate that the TLV is not exceeded. Chemtronics recommends that all local, state and federal regulations concerning health and pollution be reviewed to determine approved disposal procedures.

Section VIII  
SPECIAL PROTECTION  
INFORMATION

Respiratory Protection

Avoid breathing mist during spray applications. Use approved respiratory protection such as an air supplied mask or MSHA/NIOSH approved organic type respirator in absence or proper environmental control, or when used in an enclosed space, or when high concentrations are present.

Section IX  
SPECIAL PRECAUTION

Handling and Storing

Other Precautions

Safety glasses or goggles are required. A safety shower and eye wash station should be present for all industrial chemical applications.

Do not store where temperatures might exceed 120°F Use with adequate ventilation (equivalent to outdoors). Do not use where open flames, heating elements, or other hot objects (above 400°F) are present. Do not ingest. Do not eat, drink or smoke where vapors are present. Keep out of the reach of children.

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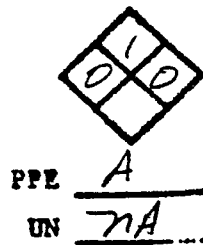
Manufacturer: Xerox Corporation  
 Rochester, New York 14644  
 Emergency Tel. No.: (716) 422-2177  
 Information Tel. No.: (800) 828-6571

**Section I - Product Identification**

Trade Names/Synonyms: Silicone Fuser Oil, Fuser Lubricant  
 Part No.: 8R79, 8R111, 8R983, 8R2404

Chemical Name: Polydimethylsiloxane

<u>Ingredients</u>	<u>CAS No.</u>
Polydimethylsiloxane	63148-62-9



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 OCT 14 1986  
 C. MURAWCZYK

**Section II - Emergency and First Aid**

**Eyes:** Flush eyes thoroughly with water.  
**Skin:** Wash with soap and water.  
**Inhalation:** Remove from exposure.  
**Ingestion:** Dilute stomach contents with several glasses of water.  
**Primary Route of Entry:** Inhalation  
**Symptoms of Overexposure:** May cause minimal irritation of respiratory passages on continuous exposure to high concentrations.  
**Additional Information:** See Sections V through VII.  
 Further information on file in Poisindex.

**Section III - Toxicology and Health Information**

*This material has been tested and evaluated by Xerox Corporation. When used as intended, it does not represent a health or safety hazard.*

Oral LD<sub>50</sub>: > 35 g/kg (Rats) practically non-toxic. TLV: N.A.  
 Dermal LD<sub>50</sub>: > 3 g/kg (Rabbits) practically non-toxic.  
 Inhalation LC<sub>50</sub>: > 11 mg/l (Rats) practically non-toxic.\* PEL: N.A.  
 Eye Irritation: (Rabbits) mildly irritating  
 Skin Sensitization: (Guinea Pigs) non-sensitizing  
 Skin Irritation: (Rabbits) non-irritating  
 Human Patch: Non-irritating, non-sensitizing  
 Mutagenicity: No mutagenicity detected in Ames, UDS, and Dominant Lethal Assays.  
 Carcinogens: None present  
 Aquatic LC<sub>50</sub>: > 500 mg/l (Fathead Minnows) non-toxic  
 Additional Information: Biodegradation /non-biodegradable, Bioaccumulation/no evidence of accumulation. \*Not tested to the highest dose or concentration.

AR200928

!XEL - Xerox Exposure Limit

**Section IV - Physical Data**

Appearance/Odor: Clear liquid/slight odor  
 Boiling Point: 149°C  
 Solubility in Water: Negligible  
 Evaporation Rate: <1, ether = 1  
 Vapor Density (Air = 1): N.A.  
 Volatile N.A. % (Wgt.) <5 % (Vol.)

Softening Range: N.A.  
 Melting Point: N.A.  
 Specific Gravity (H<sub>2</sub>O = 1): 0.98  
 Vapor Pressure (mm Hg): <5  
 pH = N.A.

**Section V - Fire and Explosion Data**

Flash Point (Method Used): >260°C (>500°F) C.O.C.

Flammable Limits LEL: N.A.  
 UEL: N.A.

Extinguishing Media: Foam, Carbon dioxide, Water Spray

Special Fire Fighting Procedures: Wear self-contained breathing apparatus and protective clothing.

Fire and Explosion Hazards: None

**Section VI - Reactivity Data**

Stability:

Unstable	
Stable	X

X

Hazardous

Polymerization:

May Occur	
Will Not Occur	X

X

Hazardous Decomposition Products:

Silicone dioxide, Carbon dioxide, and traces of incompletely burned carbon products.

Incompatibility (Materials to Avoid): Strong oxidizing materials

**Section VII - Special Protection Information**

Respiratory Protection: None required when used as intended in Xerox equipment.

Eye Protection: None required when used as intended in Xerox equipment.

Protective Gloves: None required when used as intended in Xerox equipment.

Other: None required when used as intended in Xerox equipment.

**Section VIII - Special Precautions**

Handling and Storage: Use reasonable care and caution. Clean up spills completely as residue is slippery.

Conditions to Avoid: None

**Section IX - Spill, Leak, and Disposal Procedures**

For Spills or Leakage: Soak up with an absorbent material.

Waste Disposal Method: Absorb liquid on vermiculite or other absorbent material. Dispose according to local, state and federal regulations.

**Section X - Transportation Information**

DOT Proper Shipping Name: Not Regulated

Hazard Classification: N. A.

ID Number: N. A.

AR200929



# Material Safety Data Sheet

00120

Manufacturer's Name: The Butcher Polish Company  
 Address: 120 Bartlett Street, Marlborough, MA 01752  
 Emergency Telephone No: (617) 481-5700

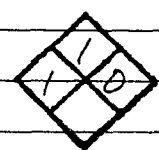
Signature of Person Responsible for Preparation: *Bonita C. Patterson*  
 Date Prepared: March 19, 1985

## IDENTITY

Common Name (used on label): GREEN SUBMARINE Cleaner  
 Trade Name & Synonyms:

## INGREDIENT INFORMATION

Principal Hazardous Component(s) (chemical & common name(s))	CAS No	%	Threshold Limit Value (units)
Sodium carbonate	497-19-8	1-2	NE
Sodium metasilicate	6834-92-0	1-2	NE



PPE: B  
 UN: 1142

## PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point	212°	Specific Gravity (H <sub>2</sub> O = 1)	1.02	Vapor Pressure	ND
Percent Volatile by Volume (%)	92	Vapor Density (Air = 1)	ND	Evaporation Rate ( = 1)	NA
Solubility in Water	Complete				
Appearance and Odor	Clear green viscous liquid; mint odor.				

Flash Point	200° F+	Flammable Limits in Air % by Volume	Lower ND	Upper	Extinguisher Media	NA
Special Fire Fighting Procedures	This product is not flammable.					

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Unusual Fire and Explosion Hazards: None known to THE BUTCHER POLISH CO.

C. MURAWCZYK  
 AR200930





Common Name (used on label) GREEN SUBMARINE  
Trade Name & Synonyms)

**REACTIVITY DATA**

Stability  Stable  Conditions to Avoid None known

ORIGINAL  
(Red)

Incubation: Materials to Avoid: Acids (e.g. muriatic), oxidizers (e.g. bleach)

Hazardous Decomposition Products: Normal products of combustion.

Hazardous Polymerization: May Occur  Will Not Occur  Conditions to Avoid None known to THE BUTCHER POLISH CO.

**HAZARD DATA**

Signs and Symptoms of Overexposure: Direct contact of product with eyes may cause burns. Prolonged or repeated contact with skin may cause irritation. Inhalation of mist may irritate respiratory tract. Pre-existing eye, skin and respiratory disorders may be aggravated.

Chemical Listed as Carcinogen or Potential Carcinogen: None

**Emergency and First Aid Procedures**

- 1 Inhalation: Remove to fresh air. Call a physician if symptoms persist.
- 2 Eyes: Flush with water for at least 15 minutes. Call a physician.
- 3 Skin: Flush with water. Call a physician if irritation develops.
- 4 Ingestion: Drink large quantities of water. Do not induce vomiting. Call a physician.

**SPECIAL PROTECTION INFORMATION**

Respirator, Protection: None required if good ventilation is maintained.

Protective Gloves: If prolonged or repeated contact is possible, wear rubber or other impervious gloves.

Eye Protection: Where eye contact may occur, wear chemical splash goggles and face shield.

**SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES**

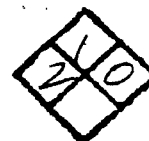
Precautions to be Taken in Handling and Storage: Practice good personal hygiene. Wash contaminated clothing and equipment before reuse.

Steps to be Taken in Case Material is Released or Spilled: Before attempting clean-up, refer to Hazard Data above. Use mop or wet vacuum to collect material for proper disposal. Rinse area with water.

Waste Disposal Methods: Dispose of this material in accordance with federal, state and local regulations.

AR 200930A

The information on this data sheet represents our current data and best opinion as to the proper use in handling of this product under normal conditions. Any use of the product which is not in conformance with this data sheet or which involves using the product in combination with any other product or any other process is the responsibility of the user.



FPE B  
WN 1999

# MATERIAL SAFETY DATA SHEET

Manufacturer's Name: Sika Corporation Date of Preparation: July 12, 1985

Sika Corporation  
875 Valley Brook Avenue  
Lyndhurst, NJ 07071

Telephone Numbers: Emergency: 800-424-9300 Information: 201-933-8800

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SECTION I - PRODUCT IDENTIFICATION  
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Product No: Sikaflex 405 Product Class: Petroleum Residuals

Product Label Name: Igas Pressure Grade Formulation Identification: 01/5/79

-----  
SECTION II - HAZARDOUS INGREDIENTS  
-----

<u>Ingredient</u>	<u>Percent</u>	<u>Listing</u>		<u>Occupational Exposure Limits</u>		<u>Vapor Pressure</u>
		<u>NTP</u>	<u>IARC</u>	<u>TLV</u>	<u>PEL</u>	
Asbestos (12001-29-5)	29%	Yes	Yes	2 fibers/cc >5 mm in length 3		N/A
Coal Tar (65996-93-2)	0.3%	Yes	No	0.2 mg/m		N/A

As supplied, the asbestos is coated with the liquid vehicle. We therefore feel the hazards of the dry state are altered and minimized.

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OCT 02 1986 AR200931  
C. MURAWCZYK

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SECTION III - PHYSICAL DATA  
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Boiling Range: N/A Vapor Density:  x Heavier  Lighter Than Air

Evap. Rate:  Faster  Slower than Ether Trace % Volatile Volume  
10.3 Wt/Gal

-----  
SECTION IV - FIRE AND EXPLOSION HAZARD DATA  
-----

Flammability Classification: N/A OSHA <325 F FLASH POINT

N/A LEL  DOT NONCOMBUSTIBLE

Extinguishing Media:  Foam  CO2  Dry Chemical  "Alcohol"  
 Water Fog  Other

Unusual Fire and Explosion Hazards:

None

Special Fire Fighting Procedures:

None

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SECTION V - HEALTH HAZARD DATA  
-----

Effects of Overexposure:

Possible irritation to mucous membranes and burns associated with usage of hot material.

Medical Conditions Prone to Aggravation by Exposure:

Asthma type conditions, chronic bronchitis, and other chronic respiratory conditions.

Recurrent skin eczema.

Test have shown that asbestos and coal tar products have been known to cause cancer in humans.

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SECTION V - HEALTH HAZARD DATA (cont)  
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Primary Route(s) of Entry:  Dermal  Inhalation  Ingestion

Emergency and First Aid Procedures:

Skin: For minor skin burns, chill first, then remove with mineral oil.  
Do not use injurious solvents for removal. See physician immediately.

-----  
SECTION VI - REACTIVITY DATA  
-----

Stability:  Unstable  Stable

Hazardous Polymerization:  May Occur  Will Not Occur

Hazardous Decomposition Products:

Toxic fumes if heated to decomposition.

Conditions To Avoid:

N/A

Incompatibility (Materials To Avoid):

Oxidizing material and strong acids.

-----  
SECTION VII - SPILL OR LEAK PROCEDURES  
-----

Steps To Be Taken In Case Material Is Released Or Spilled:

Collect and contain material and transfer to containers to discard.

AR200933

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SECTION VII - SPILL OR LEAK PROCEDURES (cont)  
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aste Disposal:

Dispose of in accordance with Federal, State, or Local Regulations regarding environmental control.

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SECTION VIII - SAFE HANDLING AND USE INFORMATION  
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Respiratory Protection:

Organic vapor canister mask unless ventilation is adequate.

Ventilation:

Local Exhaust Recommended

Protective Gloves, Heat resistant  
Eye Protection: Safety glasses or chemical goggles

Other Protective Equipment: Long sleeve shirt recommended.  
As required by your company.

Hygienic Practices: Change contaminated clothing.

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SECTION IX - SPECIAL PRECAUTIONS  
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Precautions To Be Taken In Handling and Storing:

Prevent contact with heated material.

Other Precautions:

Avoid inhalation of any fumes which may develop from heating. Store in tightly closed containers.

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. The information set forth herein is based on technical data that Sika believes to be reliable as of the date hereof. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information. Nothing herein is to be taken as a license to operate under or a recommendation to infringe any patents.

AR200934

<u>Product Name</u>	<u>Manufacturer</u>	<u>MSDS R'cd</u>	<u>Storage Area</u>	<u>People Involved</u>
3-M Desk & Office Cleaner	Commercial Office Supply		JC	A
3302 Toner, 973-712	Royal Business Machines	*	CR, CS, X	V
A. W. Faber-Castell Higgins Black Magic	Higgins Ink Company, Inc.		X	A
All Purpose Absorbent for Floors Oil & Grease Absorbent	Waverly Mineral Products Co.		TR	FMC
Antifoam	Virginia Chemicals Inc.		MR	FMC
Armstrong Adhesive S-89	Armstrong World Industries	*	MR	FMC, LP
Armstrong Adhesive 520	Armstrong World Industries	*	ME	FMC
Armstrong S-285 Wall Base Adhesive	Armstrong World Industries	*	MR	FMC
Artline 500 White Board Marker	Shachihata Products		O	A
Austin's Clear Ammonia	James Austin Co.		JC	JP
Balan 2.5G	Elanco Products Co.	*	Not Stored Here	V
Balan E.C	Elanco Products Co.	*	Not Stored Here	V
Bestine Solvent & Thinner	Union Rubber, Inc.	*	LO, X, CR, CS	FMC, LP, CO

Storage Area

- BG - Below Grade
- CR - Computer Room
- CS - Computer Supply Room
- ER - Elevator Room
- FE - Fire Extinguisher
- JC - Janitorial Closet (Basement, First Floor, Camera Room)
- LO - Lab Office
- ME - Merpanine (Water Room)
- MO - Maintenance Office
- MR - Mechanical Office
- O - Office Wide
- TR - Trash Room
- X - Xerox Room

People Involved

- A - All Personnel
- CO - Computer Operators
- Disp - Dispatchers
- FB - Fire Brigade
- FMC - Facilities Maintenance
- JP - Janitorial Personnel
- LP - Lab Personnel
- Secy - Secretaries (also includes Office Services)
- V - Vendor

<u>Product Name</u>	<u>Manufacturer</u>	<u>MSDS R'cd</u>	<u>Storage Area</u>	<u>People Involved</u>
Blackburn Contax Contact Paste	ITT Blackburn Co.		LO	LP
Butcher's Bowling Alley Wax	Butcher Polish Co.		MO	FMC
Butcher's Bright Washroom Cleaner	Butcher Polish Co.	*	JC	JP, FMC
Butcher's Deodorant Concentrated	Butcher Polish Co.	*	MO	JP, FMC
Butcher's FLASHBACK Prespray for Heavily Soiled Carpets	Butcher Polish Co.		MO	JP, FMC
Butcher's Pearly Tile & Porcelain Clean	Butcher Polish Co.	*	MO	JP, FMC
Butcher's Power Cleaner Speedball	Butcher Polish Co.	*	MO	JP, FMC
Butcher's Silky Furniture Polish	Butcher Polish Co.		MO	FMC
Butcher's Sun Bath Deodorizing Cleaner	Butcher Polish Co.	*	MO	JP, FMC
Butcher's Timebuster Stripper	Butcher Polish Co.		MO	FMC
Butyl Acetate	J. T. Baker Company	*	LO	LP

Storage Area

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- CR - Computer Room
- CS - Computer Supply Room
- ER - Elevator Room
- FE - Fire Extinguisher
- JC - Janitorial Closet (Basement, First Floor, Camera Room)
- LO - Lab Office
- ME - ~~Mechan~~ Maintenance (Water Room)
- MO - Maintenance Office
- MR - Mechanical Office
- O - Office Wide
- TR - Trash Room
- X - Xerox Room

People Involved

- A - All Personnel
- CO - Computer Operators
- Disp - Dispatchers
- FB - Fire Brigade
- FMC - Facilities Maintenance
- JP - Janitorial Personnel
- LP - Lab Personnel
- Secy - Secretaries (also includes Office Services)
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10/21/87

<u>Product Name</u>	<u>Manufacturer</u>	<u>MSDS R'cd</u>	<u>Storage Area</u>	<u>People Involved</u>
Cabot's Targon Penetrating Lubricant	Samuel Cabot, Inc.		LO, MR	LP, FMC
Carpet Magic "Steam" Cleaning Defoamer	Carpet Magic Div of Hartz Mountain Corp.		JC	JP
Carter's Rubber Cement #08-450	Dennison Manufacturing Co.		O	A
Chapco Seam Bond Solvent	Chicago Adhesive Products Co.		MR	FMC
Chipco Ronstar G Oxadiazon	Rhone-Poulenc, Inc.	*	Not Stored Here	V
Chipco Ronstar G Oxadiazon Formulated Granular	Rhone-Poulenc, Inc.	*	Not Stored Here	V
Classic Stamp Pad Ink Red	Classic Stamp Pad Ink Co., Inc.		O	A
Cleaning Solvent, Product #199-65064G			LO	LP
C.M.A. Super 21 Rug Shampoo	Clausen Marketing Associates		JC	JP
Complex 66 Degreaser	Bullen Chemical Co.	*	MO	FMC, JP
CRC 5-56	CRC Chemicals	*	LO	LP, FMC

Storage Area

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- LO - Lab Office
- ME - Mezzanine (Water Room)
- MO - Maintenance Office
- MR - Mechanical Office
- O - Office Wide
- TR - Trash Room
- X - Xerox Room

People Involved

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- CO - Computer Operators
- Disp - Dispatchers
- FB - Fire Brigade
- FMC - Facilities Maintenance
- JP - Janitorial Personnel
- LP - Lab Personnel
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<u>Product Name</u>	<u>Manufacturer</u>	<u>MSDS R'cd</u>	<u>Storage Area</u>	<u>People Involved</u>
CRC Silicone #02094	CRC Chemicals		LO	LP, FMC
Dazzle Metal Cleaner & Polish	Zimmerman, Inc.		JC	FMC, JP
Disinfectant Cleaner	Contract Cleaners Supply		JC	JP
Duco Cement	Devcon Corp.		LO	LP, FMC
Dursbar Lo	Humphreys Pest Control		Not Stored Here	V
Dyna-Solv Cleaner/Degreaser	Zimmerman, Inc.		MO, MR	FMC, JP
Encapsulated Natural Pyrethrum	Whitmire Research Labs, Inc.	*	Not Stored Here	V
Endust Cleaner	Drackett Products Co.		JC	JP
Expo White Board Cleaner 81803	Sanford Corp.	*	O	A
Exposi Patch Kit 1C White	Hysol Division, The Dexter Co.		LO, MR	LP, FMC
Fast Draw Wire Pulling Lubricant	ITT Blackburn Co.	*	MR	LP
Fire Extinguishing General Carbon Dioxide	General Fire Extinguishing Corp.		FE	FB

Storage Area

- BG - Below Grade
- CR - Computer Room
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- FE - Fire Extinguisher
- JC - Janitorial Closet (Basement, First Floor, Camera Room)
- LO - Lab Office
- ME - Mezzanine (Water Room)
- MO - Maintenance Office
- MR - Mechanical Office
- O - Office Wide
- TR - Trash Room
- X - Xerox Room
- CO

People Involved

- A - All Personnel
- CO - Computer Operators
- Disp - Dispatchers
- FB - Fire Brigade
- FMC - Facilities Maintenance
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- LP - Lab Personnel
- Secy - Secretaries (also includes Office Services)
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<u>Product Name</u>	<u>Manufacturer</u>	<u>MSDS R'cd</u>	<u>Storage Area</u>	<u>People Involved</u>
Fire Extinguishing Water	Norris Industries Fire & Safety Equipment Division		FE	FB
Flux-Off C-2490	Chemtronics, Inc.		LO	LP
Foam Scrub for Floors	3M Co.		MO	FMC, JP
Glare Sentry II Cleaner	Inmac		O	A
Freez-It #12	Chemtronics, Inc.		LO	LP
Green Submarine	Butcher Polish Co.	*	ME, JC	FMC
Grip Non-Skid Safety Coating	Bell Chemical Industries		MR	FMC
G.T.O. Solvent Spot Remover	Clausen Marketing Associates		JC	JP
HALON Fire Extinguishing Bromotrifluoromethane	Dupont		BG	FB
IGAS Joint Sealer	Sika Corp.		MR	LP
Imperial Scale Remover	Calgon Corp.		MR	FMC, V

Storage Area

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- CR - Computer Room
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- LO - Lab Office
- ME - Maintenance (Water Room)
- MO - Maintenance Office
- MR - Mechanical Office
- O - Office
- TR - Trash Room
- X - Xerox Room

People Involved

- A - All Personnel
- CO - Computer Operators
- Disp - Dispatchers
- FB - Fire Brigade
- FMC - Facilities Maintenance
- JP - Janitorial Personnel
- LP - Lab Personnel
- Secy - Secretaries (also includes Office Services)
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<u>Product Name</u>	<u>Manufacturer</u>	<u>MSDS R'cd</u>	<u>Storage Area</u>	<u>People Involved</u>
Industrial Strength Drain Opener	Zimmerman, Inc.		MO, ME	FMC
Instant Kleen All	Tech Spray	*	LO	FMC, LP
Jif-Y-Clean (Scotch Bright Pad)	Microtron Abrasives, Inc.		LO	LP, FMC
Krylon Crystal Clear Spray Coating 1301	Borden, Inc.	*	LO	FMC, LP
Krylon Electronic Protective Spray Coat	Borden, Inc.		LO	LP
Lectra Clean	CRC Chemicals	*	LO	LP
LPC Office Products Correction Fluid	Gillette Co., Paper Mate Div.	*	O	A
Lubrisil	Penetone Corp.	*	LO	LP
Lucas Solvent (Formula F-1091)	John Lucas & Co.		MR	FMC
M 300 Oil Free Dispersing Cleaner	M-Oil-Free Co.		LO	LP
MAB Brush & Roller Bath	MAB Paints		MR	FMC
MAB Paints	MAP Paints		MR	FMC

Storage Area

BG - Below Grade  
 CR - Computer Room  
 CS - Computer Supply Room  
 ER - Elevator Room  
 FE - Fire Extinguisher  
 JC - Janitorial Closet (Basement, First Floor, Camera Room)  
 LO - Lab Office  
 ME - Mezzanine (Water Room)  
 MO - Maintenance Office  
 MR - Mechanical Office  
 O - Office Wide  
 TR - Trash Room  
 X - Xerox Room

People Involved

A - All Personnel  
 CO - Computer Operators  
 Disp - Dispatchers  
 FB - Fire Brigade  
 FMC - Facilities Maintenance  
 JP - Janitorial Personnel  
 LP - Lab Personnel  
 Secy - Secretaries (also includes Office Services)  
 V - Vendor

<u>Product Name</u>	<u>Manufacturer</u>	<u>MSDS R'cd</u>	<u>Storage Area</u>	<u>People Involved</u>
Malathion ULV Concentrate Insecticide	American Cyanamid Co.	*	Not Stored Here	V
Marking Paint	Aervoe Pacific Co.	*	LO	LP
Methyl Ethyl Ketone			LO	LP
Methylene Chloride	Phillips & Jacobs		LO	LP
Methylisobutyl Ketone			LO, MR	LP, FMC
Misty Mark Remover	Amrep, Inc.		JC	JP
Misty II Disinfectant & Deoderant	Amrep, Inc.		MO, CR	FMC, CO
Molykote 557 Lubricant	Dow Corning Corp.		X, CR, CS	CO, FMC
MS-220 Aero-Duster	Miller-Stephenson Chemical	*	LO	LP
Nalco #8256	Nalco Chemical Co.		MR	LP, FMC
Nybco Primer & Sealer	New York Bronze Powder Co.		MR	FMC
Orthene 75 S Soluble Powder	Chevron Environmental Health Center	*	Not Stored Here	V

<u>Storage Area</u>	<u>People Involved</u>
BC - Below Grade	A - All Personnel
CR - Computer Room	CO - Computer Operators
CS - Computer Supply Room	Disp - Dispatchers
ER - Elevator Room	FB - Fire Brigade
FE - Fire Extinguisher	FMC - Facilities Maintenance
JC - Janitorial Closet (Basement, First Floor, Camera Room)	JP - Janitorial Personnel
LO - Lab Office	LP - Lab Personnel
ME - Mezzanine (Water Room)	Secy - Secretaries (also includes Office Services)
MO - Maintenance Office	V - Vendor
MR - Mechanical Office	
O - Office Wide	
TR - Trash Room	
X - Xerox Room	

<u>Product Name</u>	<u>Manufacturer</u>	<u>MSDS R'cd</u>	<u>Storage Area</u>	<u>People Involved</u>
Otis Cleaning Compound No. 2	Otis Elevator		ER	V
Otis Inhibitor No. 3	Otis Elevator		ER	V
Otis Lubricant Oil No. 2	Otis Elevator		ER	V
Otis Lubraicant Oil No. 41	Otis Elevator		ER	V
Ozi Tape	Woodlets, Inc.		MR	FMC
Paco Solvent Denatured Alcohol	Publicker Industries		LO	LP
Paint Thinner 090-032	MAB Paints	*	MR	FMC
Pentac Aqua Flow	Zoecon Corp.	*	Not Stored Here	V
Pink Concentrate Detergent	Contract Cleaners Supply		JC	JP
Plast-N-Glas C8400/C6400	Chemtronics, Inc.	*	MO	FMC, JP
Plastic Spray Pearl White #634779	IBM		LO	LP, FMC
Premium Blue ISW-40 Diesel/Engine Oil	Cummins Engine Co., Inc.		MR	V. FMC

Storage Area

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- LO - Lab Office
- ME - Mezzanine (Water Room)
- MO - Maintenance Office
- MR - Mechanical Office
- O - Office Wide
- TR - Traffic Room
- X - Xerox Room

People Involved

- A - All Personnel
- CO - Computer Operators
- Disp - Dispatchers
- FB - Fire Brigade
- FMC - Facilities Maintenance
- JP - Janitorial Personnel
- LP - Lab Personnel
- Secy - Secretaries (also includes Office Services)
- V - Vendor

<u>Product Name</u>	<u>Manufacturer</u>	<u>MSDS R'cd</u>	<u>Storage Area</u>	<u>People Involved</u>
Purple "K" Dry Chemical/Fire Extinguishing	General Fire Extinguishing Corp.		FE	FB
Quelpyre Mastic 7038	Quelcor, Inc., NG	*	MR	FMC
Rapid Tap Cutting Fluid	Relton Corp.		LO	LP, FMC
Recorder Ink Black - Fast Dry	Leeds & Northrup		LO, MR	LP
Recorder Ink Black - Slow Dry	Leeds & Northrup		LO, MR	LP
Recorder Paper Roll	IBM		CS	CO, LP, FMC, Dis
Red Hot Pellets Ice & Snow Melter (Calcium Chloride)	Chas. Schaefer		TR	FMC
Red Ink - General Purpose	Leeds & Northrup		LO, MR	LP
Red Wing Linseed Oil	Pittsburgh Plate Glass Co.		MR	FMC
Refrigerant - 11	National Refrigerants		MR	FMC, V
Relton's A-9 Cutting Fluid For Aluminum	Relto Corp.		LO	LP

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 LO - Lab Office  
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 MO - Maintenance Office  
 MR - Mechanical Office  
 O - Office Wide  
 TR - Trash Room  
 X - Xerox Room

People Involved  
 A - All Personnel  
 CO - Computer Operators  
 Disp - Dispatchers  
 FB - Fire Brigade  
 FMC - Facilities Maintenance  
 JP - Janitorial Personnel  
 LP - Lab Personnel  
 Secy - Secretaries (also includes Office Services)  
 V - Vendor

<u>Product Name</u>	<u>Manufacturer</u>	<u>MSDS R'cd</u>	<u>Storage Area</u>	<u>People Involved</u>
Round Up Herbicide	Monsanto Co.	*	Not Stored Here	V
Royal Cleaning Fluid 1	Royal Business Machines		XR	FMC, Secy
Rubber Cement	Dennison Manufacturing Co.		O	A
Rubber Cement #852	Carter's Ink Co.		O	A
Rust-O-Lastic Spray Enamel Wht. 125-1639	MAB Paints		LO	LP, FMC
Safer Agro-Chem's Insecticidal Soap Concentrate	E. C. Geiger	*	Not Stored Here	V
Salt - Cargill Super Soft Pellets	Cargill Salt Div.	*	MR	FMC
Sanford's Quick-Dry Stamp Pad Ink #580	Sanford Corp.		O	A
Scotchkote	Electro Products Division, 3M		LO	LP
Sedco P.V.C. Cement	Sedco Pipe Products, Inc.		LO	LP
Sehl-Safe Slip Resistant Treatment	Sehl International, Inc.	✗	MO	FMC

Storage Area  
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 CS - Computer Supply Room  
 ER - Elevator Room  
 FE - Fire Extinguisher  
 JC - Janitorial Closet (Basement, First Floor, Camera Room)  
 LO - Lab Office  
 ME - Engine (Water Room)  
 MO - Maintenance Office  
 MR - Mechanical Office  
 O - Office Wide  
 TR - Trash Room  
 X - Xerox Room

People Involved  
 A - All Personnel  
 CO - Computer Operators  
 Disp - Dispatchers  
 FB - Fire Brigade  
 FMC - Facilities Maintenance  
 JP - Janitorial Personnel  
 LP - Lab Personnel  
 Secy - Secretaries (also includes Office Services)  
 V - Vendor

<u>Product Name</u>	<u>Manufacturer</u>	<u>MSDS R'cd</u>	<u>Storage Area</u>	<u>People Involved</u>
Sevin Brand 50 W Carbaryl Insecticide	Union Carbide Agricultural Products Co., Inc.	*	Not Stored Here	V
Shachihata Stamper Ink - Red, Black, Blue	Shachihata Products		O	A
Sik-A-Seal Vapor Barrier Coating #20003	Sika Corp.		MR	LP
Silazene Silicone Spray	Zimmerman, Inc.	*	MO	FMC, LP
Smoke Detector Tester	Home Safeguard Industries	*	LO	LP
Sodium Molybdate	Alex C. Fergusson Co.		MR	V
Storagetek Hub & Transport Cleaner Fluid	Startex Chemical, Inc.	*	X, CR, CS	CO, FMC
Strip All	Alpha Systems Unlimited	*	ME	FMC
Sunbonnet Lemon Wax	Butcher Polish Co.	*	MO	FMC, JP
Sundance Floor Cleaner	Butcher Polish Co.	*	ME, JC	FMC
Super Gloss Wax	Bullen Chemical Co.	*	JC	FMC, JP

Storage Area

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People Involved

- A - All Personnel
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- FMC - Facilities Maintenance
- JP - Janitorial Personnel
- LP - Lab Personnel
- Secy - Secretaries (also includes Office Services)
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<u>Product Name</u>	<u>Manufacturer</u>	<u>MSDS R'cd</u>	<u>Storage Area</u>	<u>People Involved</u>
Super Husky Toilet Bowl Cleaner	Canberra, Corp.	X	JC	JP
Super Zene Bowl Cleaner	Canberra Corp.		MO, ME, JC	FMC
Superior Sno N Ice Melter	Chemopham Labs		TR	FMC
Swat Wasp & Hornet Spray	Zimmerman, Inc.		MO	FMC
Swell Lotionized Detergent	Epic Industries		MO	A
Tahitian Mist	Zimmerman, Inc.		MO	FMC
Texaco Capella Oil	Texaco, Inc.		MR	FMC
Texaco Rando Oil A	Texaco, Inc.		ER	V
The C-4 Brand Decays #363-45	Coopers Creek Chemical Corp.		MR	FMC
Trimec Broadleaf Herbicide	G Phi/Gordon Corp.	*	Not Stored Here	V
Tri-Flow	Costa Mesa Lubricants, Inc.		X, CR, CS	CO, FMC
Twinkle Cleaner & Polish	Drackett Products Co.		JC	JP

<u>Storage Area</u>	<u>People Involved</u>
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ER - Elevator Room	FB - Fire Brigade
FE - Fire Extinguisher	FMC - Facilities Maintenance
JC - Janitorial Closet (Basement, First Floor, Camera Room)	JP - Janitorial Personnel
LO - Lab Office	LP - Lab Personnel
ME - Mezzanine (Water Room)	Secy - Secretaries (also includes Office Services)
MO - Maintenance Office	V - Vendor
MR - Mechanical Office	
O - Office Wide	
TR - Trash Room	
X - Xerox Room	

<u>Product Name</u>	<u>Manufacturer</u>	<u>MSDS R'cd</u>	<u>Storage Area</u>	<u>People Involved</u>
Unbelievable Stain Remover	Core Products Co., Inc.	*	MO	FMC, JP
Weldwood Contact Cement #0271	Roberts Consolidated		MR	FMC
Windex Glass Cleaner w/Ammonia D	Drackett Products Co.		MO, ME	FMC, JP, CO
Xerox Cleaning Solvent 43P78	Xerox Corp.		X, CR, CS	V
Xerox Developer 1045 Recorder #5R-111	Xerox Corp.	*	X, CR, CS	V
Xerox Developer 1075/1090 Recorder 5R302	Xerox Corp.	*	X, CR, CS	V
Xerox Developer 8700/9700	Xerox Corp.		X, CR, CS	V
Xerox Developer, Black, 1025	Xerox Corp.		X, CR, CS	V
Xerox Drum Cleaner 6500/6200	Xerox Corp.		X, CR, CS	V
Xerox Dry Ink Plus 1040, 1045, 1048	Xerox Corp.		X, CR, CS	FMC, V, CO, Secy
Xerox Dry Ink Plus, Black, 1025/1038	Xerox Corp.		X, CR, CS	FMC, V, CO, Secy
Xerox Dry Ink 1075/1090 Recorder #6R301	Xerox Corp.		X, CR, CS	FMC, V, CO, Secy

Storage Area  
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People Involved  
 A - All Personnel  
 CO - Computer Operators  
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 FMC - Facilities Maintenance  
 JP - Janitorial Personnel  
 LP - Lab Personnel  
 Secy - Secretaries (also includes Office Services)  
 V - Vendor

<u>Product Name</u>	<u>Manufacturer</u>	<u>MSDS R'cd</u>	<u>Storage Area</u>	<u>People Involved</u>
Xerox Dry Ink 8700/9700	Xerox Corp.		X, CR, CS	FMC, V, CO, Sec
Xerox Film Remover	Xerox Corp.		X, CR, CS	V
Xerox Fuser Lubricant Recorder #8R983	Xerox Corp.		X, CR, CS	V
Xerox Formula A Cleaner #43P48 ✓ ↑	Xerox Corp.	*	X, CR, CS	V
Xerox Formula A Cleaner #43P49	Xerox Corp.		X, CR, CS	V
Xerox Lens & Mirror Cleaner 43P66	Xerox Corp.		X, CR, CS	V
Xerox Photoreceptor Pumice	Xerox Corp.		X, CR, CS	V
Zinc-It #2081 Cold Galvanizing Coating	CRC Chemicals	*	MR	FMC, LP

WEW/dlw/4981G

<u>Storage Area</u>	<u>People Involved</u>
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CR - Computer Room	CO - Computer Operators
CS - Computer Supply Room	Disp - Dispatchers
ER - Elevator Room	FB - Fire Brigade
FE - Fire Extinguisher	FMC - Facilities Maintenance
JC - Janitorial Closet (Basement, First Floor, Camera Room)	JP - Janitorial Personnel
LO - Lab Office	LP - Lab Personnel
ME - Mezzanine (Water Room)	Secy - Secretaries (also includes Office Services)
MO - Maintenance Office	V - Vendor
MR - Mechanical Office	
O - Office	
TR - Trash Room	
X - Xerox Room	

10/21/87

UP  
F  
8

AMERICAN  
INDUSTRIAL  
WASTE

A Division of ENSCO • 5900 B Cockrill Bend Road • Nashville, TN 37209 • (615) 383-1691 / (615) 383-169.

December 27, 1982

Philadelphia Electric Company  
2301 Market St.  
Philadelphia, Pa

Attention: Jim Chuplin

Dear Mr Chuplin,

Please find enclosed the Original Generator's Copy of the Hazardous waste Manifest and the Hazardous Waste Bill of Lading for your company's shipment which arrived at Ensco(AWI), Nashville, Tennessee on December 18, 1982.

Sincerely,

*Patty Harris*  
Patty Harris  
AWI/Nashville

AR200949

FOR HELP IN CHEMICAL EMERGENCIES INVOLVING SPILL, LEAK, FIRE OR EXPOSURE CALL TOLL-FREE 1-800-424-9300 DAY OR NIGHT

**STRAIGHT BILL OF LADING**  
ORIGINAL - NOT NEGOTIABLE

#01

Shippers \_\_\_\_\_

CARRIER: ENSCO

SCAC

Carriers \_\_\_\_\_ Date 12/18/82

TO: Consignee EnscO Incorporated  
Street 1015 Louisiana St.  
Destination Little Rock, AR Zip 72202

FROM: Shipper Philadelphia Electric Company  
Street 2301 Market St.  
Origin Philadelphia, Pa Zip 19101

Route: \_\_\_\_\_ Vehicle Number \_\_\_\_\_

No. of Shipper Units	Kind of Packages, Description of Articles (IF HAZARDOUS MATERIALS PROPER SHIPPING NAME)	HAZARD CLASS	ID Number	WEIGHT (subject to correction)	RATE	LABELS REQUIRED (or exemption)
2	Allis Chalmers Transformers KVA 1000, Serial #5026503 and Serial #5026504			19,400		
<i>Reverse A.T. to Billy Clark</i>						

Remit C.O.D. to: Address: City: State: Zip:

C.O.D. Fee: Prepaid  Collect  \$  
**COD Amt: \$**

NOTE: Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding \$ \_\_\_\_\_ Per \_\_\_\_\_

Subject to Section 7 of the conditions of this bill of lading, it is to be delivered to the consignee without recourse on the carrier, the consignor, shipper or the carrier's agent. The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.  
Signature of Consignor: \_\_\_\_\_  
**FREIGHT CHARGES**  
 PREPAID  COLLECT

RECEIVED: subject to the classifications and tariffs in effect on the date of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown, raised, damaged, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier or all or any of said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself (not his agent).

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.  
**PLACARDS REQUIRED** YES **PLACARDS SUPPLIED**  YES  NO - FURNISHED BY CARRIER  
DRIVER SIGNATURE: \_\_\_\_\_

SHIPPER: Philadelphia Electric Company  
PER: *James H. Blupper*  
DATE: 12/18/82

CARRIER: EnscO Inc.  
PER: *James Williams*  
DATE: 12-18-82

**CONTAINS HAZARDOUS MATERIALS**  
FOR HELP IN CHEMICAL EMERGENCIES INVOLVING SPILL, LEAK, FIRE OR EXPOSURE CALL TOLL-FREE 1-800-424-9300 DAY OR NIGHT

AR200950

# HAZARDOUS WASTE MANIFEST

ORIGINAL - NOT NEGOTIABLE

MANIFEST DOCUMENT NUMBER

SHIPPER NUMBER

EnSCO

NAME OF CARRIER

(SCAC)

CARRIER NUMBER

## IDENTIFICATION

12 DIGIT EPA ID #	COMPANY NAME, MAILING ADDRESS, AND TELEPHONE NUMBER	DATE SHIPPED OR RECEIVED
GENERATOR/SHIPPER	Philadelphia Electric Company, 2301 Market Street, Philadelphia, Pa. 19101 (215-841-5256) <i>ATTN: J. C. JOHNSON</i>	12/18/82
TRANSPORTER # 1	EnSCO Incorporated, 1015 Louisiana Street, Little Rock, AR 72202 (501-375-8444)	
TRANSPORTER # 2 (if required)		
TSDF TREATMENT STORAGE OR DISPOSAL FACILITY		
TSDF TREATMENT STORAGE OR DISPOSAL FACILITY		

## WASTE INFORMATION

NO. OF UNITS & CONTAINER TYPE	HM	EPA HAZ WASTE ID #	DESCRIPTION AND CLASSIFICATION (Proper Shipping Name, Class and Identification Number per 172.101, 172.202, 172.203)	UN # or NA #	EXEMPTION OR NO LABELS REQUIRED	FLASH POINT (IN °C) WHEN REQ'D	UNITS WT/VOL	TOTAL QUANTITY	RATE	CHARGES (For Carrier Use Only)
2			KVA 1000 Allis-Chalmers Transformers Serial #5026504 and Serial #5026503					2		

## SPECIAL HANDLING INSTRUCTIONS

If an RC commodity is spilled on a waterway or adjoining land, the incident must be promptly reported to the Federal government at 1-800-424-8802 (toll free) or 202-426-2675 (toll call). If other DOT Hazardous Materials are discharged creating a serious situation, call shipper's telephone number or Chemtrec 1-800-424-9300 immediately.

## COMMENTS

On "Collect on Delivery" shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. 1

## PLACARDS TENDERED

Yes  No

<b>REMIT C.O.D. TO: ADDRESS</b> <small>Rate—Where the rate is dependent on value shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding \$ _____ per _____</small>	<b>COD</b> Amt: \$ _____ <small>Subject to Section 7 of the conditions if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement: The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.</small>	<b>C.O.D. FEE PREPAID <input checked="" type="checkbox"/> COLLECT <input type="checkbox"/></b> \$ _____ <b>TOTAL CHARGES</b> \$ _____ <b>FREIGHT CHARGES</b> <small>FREIGHT PREPAID CHECK WHEN DOT MIGHT BE CHECKED <input type="checkbox"/> CHECK BOX IF CHARGES ARE TO BE COLLECT</small>
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RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or

any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.

Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

## CERTIFICATION

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation and the U.S. Environmental Protection Agency

This is to certify acceptance of the hazardous waste shipment.

*James Williams*  
TRANSPORTER #1 SIGNATURE & DATE 12-18-82

TRANSPORTER #2 SIGNATURE & DATE (if required)

AR200951