

MATERIAL SAFETY DATA SHEET**I - PRODUCT IDENTIFICATION**

Product: Algaecide 60

II - TRANSPORTATION DATA

U.S. Department of Transportation - 49 CFR

Not regulated

Emergency Telephone Number: Chemtrec 800-424-9300

III - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

<u>Chemical or Common Name</u>	<u>Percent</u>	<u>CAS</u>	<u>TLV</u>
Poly[oxyethylene(dimethyliminio)ethylene (dimethyliminio)ethylene dichloride	60%	31075-24-8	N/A

* The remainder of the components comprise proprietary information

IV - PHYSICAL/CHEMICAL CHARACTERISTICS

Odor:	mild
Appearance:	clear, pale yellow liquid
Density @ 25°C:	1.15 g/ml
pH:	6 – 8
pH (100 ppm in water):	6 – 7
Freezing Point:	< 0°C
Solubility in Water:	completely miscible with water, insoluble in most organic solvents
Vapor Pressure (mm Hg):	not tested
Oil/Water Partition Coefficient:	not tested
Oxidizing/Reducing Properties:	not tested
Boiling Point (@ 760 mm Hg):	> 100°C

V - FIRE AND EXPLOSION HAZARD DATA

Flash Point:

None

Flammable Limits

LEL: Not determined

UEL: Not determined

Extinguishing Media:

Dry chemical, water foam or carbon dioxide. Water should be used to cool surrounding containers

Special Fire-fighting Procedures:

None

VI - REACTIVITY DATA

Stability:

Unstable Stable

Incompatibility:

Anionic polymers

Hazardous Decomposition or By-Products:

Unknown, but carbon monoxide may be released on burning

Hazardous Polymerization:

May Occur Will Not Occur

VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps To Be Taken In Case Material Is Spilled Or Released:

IMPORTANT: before responding to a spill or leak of this product, review each section of this MSDS. Follow the recommendations given in the Handling Precautions sections. Check the Fire and Explosion Data to determine if the use of non-sparking tools if merited. Insure that spilled or leaked product does not come into contact with materials listed as incompatible. If irritating fumes are present, consider evacuation of enclosed areas

Initially minimize area affected by the spill or leak. Block any potential routes to water systems (e.g., sewers, streams, lakes, etc.). Based on the product's toxicological and chemical properties, and on the size and location of the spill or leak, assess the impact on contaminated environments (e.g., water systems, ground, air equipment, etc.). There are no methods available to completely eliminate any toxicity this product may have on aquatic environments. Minimize adverse effects on these environments. Determine if federal, state, and/or local release notification is required. Recover as much of the pure product as possible into appropriate containers. Later, determine if this recovered product can be used for it intended purpose. Address clean-up of contaminated environments. Spill or leak residuals may have to be collected and disposed of. Clay, soil, or commercially available absorbents may be used to recover any material that can not readily be recovered as pure product. Flushing residual material to an industrial sewer, if present at the site of a spill or leak incident, may be acceptable if authorized approval is obtained. If product and/or spill/leak residuals are flushed to an industrial sewer, insure that they do not come into contact with incompatible materials. Contact the person(s) responsible for the operation of your facility's industrial sewer system prior to intentionally flushing or pumping spills or leaks of this product to the industrial sewer.

Waste Disposal Method:

NOTE: follow federal, state, and local regulations governing the disposal of waste material

Determine if waste containing this product can be handled by available industrial effluent system or other on-site waste management unit. If off-site management is required, contact a company experienced in industrial waste management. This product is not specifically listed in 40 CFR 261 as a Resource Conservation and Recovery Act (RCRA) hazardous waste. However, spill or leak residuals may meet the criteria of a characteristic hazardous waste under this Act. Check the characteristics of the material to be disposed of an/or the physical and reactivity data given in the MSDS for the neat product.

Container Disposal:

Empty containers, as defined by appropriate sections of the RCRA, are not RCRA hazardous wastes. However, insure proper management of any residuals remaining in container

Precautions to Be Taken in Handling and Storage:

Eye-wash fountains in the work area are recommended.

Rubber gloves, indirect ventilation goggles, body-protective clothing, and rubber safety shoes are required

Satisfactory Materials of Construction:

Tested Satisfactory Materials:

Polypropylene, plexiglas, teflon, pvc – rigid, buna-N rubber, viton, EPDM rubber, PVC – flexible, neoprene, fiberglass, polyethylene – low density, tygon, tyril 880, gum rubber, silicone rubber, hypalon, polyethylene – high density, stainless steels 304 and 316, butyl rubber, ABS (Plastic), morton test liner (108 T 44LV), nylon 606, FRP lined mild steel

NOTE: with respect to all other materials not listed above, user should be aware that use of such materials with WSCP may be hazardous and result in damages to such materials and other property and personal injuries. No data concerning such materials not listed above should be implied by the user

VIII - HEALTH HAZARD DATA

OSHA Hazard Classification:

Irritating to eyes

Primary Route(s) of Entry:

Ingestion: ()
Inhalation: (X)
Skin Contact: (X)
Eye Contact: (X)

Effects of Acute Exposure to Material:

Ingestion: ingestion is not expected to be a primary route of exposure
Inhalation: may cause irritation or corrosion of mucous membranes and the lungs. Exposed individuals should be monitored for respiratory distress, bronchitis or pneumonia

Skin Contact: non-irritating to the skin
Eye Contact: mild irritant. Effects may range from none to mild depending on the length of exposure, solution concentration and first aid measures

Effects of Chronic Exposure to Material:

The effects from chronic exposure to this material have not been fully evaluated

Emergency and First Aid Procedures:

Ingestion: DO NOT INDUCE VOMITING. Rinse mouth with copious amounts of water or milk, first. Irrigate the esophagus and dilute stomach contents by slowly giving one (1) to two (2) glasses of water or milk. Avoid giving alcohol or alcohol related products. In case of intentional ingestion of the product seek medical assistance immediately; take individual to the nearest medical facility.

Inhalation: if exposure by inhalation is suspected, immediately move exposed individual to fresh air. If individual experiences nausea, headache, dizziness, had difficulty in breathing or is cyanotic, seek a health care professional immediately

Skin Contact: wash exposed area with plenty of soap and water. Repeat washing. Remove contaminated clothing and wash thoroughly before reuse. If irritation persists, consult a health care professional

Eye Contact: flush immediately with copious amounts of tap water or normal saline (minimum of 15 minutes). Take exposed individual to a health care professional, preferably an ophthalmologist, for further evaluation.

Note to Physician: no specific antidote is known. Treat symptoms

IX – REGULATORY INFORMATION

THE FOLLOWING Regulations are known to apply to the use and disposal of this product. Additional federal, state, and local regulations may also be applicable

SARA:

SARA 302 Extremely Hazardous Substances List:

No components of this product are listed

SARA 312 Hazard Category:

Immediate (Acute) Health Hazard

SARA 313 Toxic Chemicals List:

No Section 313 listed substances are present above de minimus levels.

CERCLA:

No components of this product are listed

RCRA:

No components of this product are listed

CWA:

No components of this product are listed

FDA:

This product is approved under the following FDA (21 CFR) sections:

This product has been approved by the NSF for the treatment, at 0.5 ppm maximum, of potable water systems for the control of algae and mollusks.

TSCA:

Registered pesticides are exempt from the requirements of TSCA

FIFRA:

This product is a registered pesticide. EPA Reg. No. 1448-32

HMIS/NPCA Ratings:

Health – 1; Flammability – 1; Reactivity – 1

NFPA Ratings:

Health – 1; Flammability – 1; Reactivity – 1

State Regulations:

California Proposition 65:

This product has been reviewed for Proposition 65 components, and the following warning applies:

WARNING – this product may contain substance(s) which are known to the State of California to cause cancer or reproductive harm. (contains/may contain trace levels of (< 10 ppm) of Dichloroethyl ether, 1,4-dioxane, and (< 20 ppb) N-nitrosodimethylamine.)

XI – PRECAUTIONARY LABEL INFORMATION AS PRESCRIBED BY THE US EPA

CAUTION: Harmful if swallowed. Avoid breathing vapors. Avoid contact with skin, eyes, or clothing.

FIRST AID: If swallowed, call a physician or Poison Control Center immediately. DO NOT INDUCE VOMITING. Rinse mouth with copious amounts of water or milk, and then give 1 or 2 glasses of water. Avoid alcohol

ENVIRONMENTAL HAZARDS: this pesticide is toxic to fish. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

XII – TOXICOLOGICAL INFORMATION

Acute Effects:

Oral LD50:	Male – 1951 mg/kg Female – 2587 mg/kg
Dermal LD50:	> 2,000.0 mg/kg
Inhalation LC50:	2.9 mg/l

Irritant Effects:

Mild transient irritation

Sensitization Effects:

No evidence of sensitization

Carcinogenic Potential:

A two year rat carcinogenicity study showed a slight increase in c-cell adenomas in female rats. Studies with male rats and male and female mice did not show any evidence of carcinogenic response. This product is not considered a carcinogen. Not listed in the OSHA Standard, Section 1910.1200 as a carcinogen.

Target Organ Effects:

Eyes (irritation) are expected to be the primary target organ of this product

Other Health Effects:

Mutagenicity studies were negative

XIII – ENVIRONMENTAL TOXICOLOGICAL INFORMATION

Acute Aquatic LC50:

48 hour Daphnia Magna: 0.37 mg/l
96 hour Fathead Minnow: 0.26 mg/l
96 hour Bluegill Sunfish: 0.21 mg/l
96 hour Rainbow Trout: 0.047 mg/l

Acute Marine LC50:

96 hour Sheepshead Minnow: >600.0 mg/l
96 hour Mysid Shrimp: 13.0 mg/l
96 hour Quahog Clam: 0.35 mg/l

Avian Acute Oral LD50:

Mallard Duck: 805.0 mg/kg
Bobwhite Quail: 1,100.0 mg/kg

Avian Dietary LD50:

Mallard Duck: >5,620.0 ppm
Bobwhite Quail: >20,000.0 ppm

XIV - ADDITIONAL INFORMATION

ALWAYS COMPLY WITH ALL APPLICABLE INTERNATIONAL, FEDERAL, STATE AND LOCAL REGULATIONS REGARDING THE TRANSPORTATION, STORAGE, USE AND DISPOSAL OF THIS CHEMICAL.

Due to the changing nature of regulatory requirements, the REGULATORY INFORMATION listed in Section IX of this document should NOT be considered all-inclusive or authoritative. International, Federal, State and Local regulations should be consulted to determine compliance with all required reporting requirements.

The information in this MSDS was obtained from sources which we believe are reliable.

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