1. IDENTIFICATION OF THE SUBSTANCE AND COMPANY

Chemical Name: Poly(oxyethylene (dimethyliminio)ethylene – (dimethyliminio) ethylene dichloride).
Similar names: Poly 15 Algaecide
Trade names: WSCP, Algaecide 15, 15% Algaecide
Chemical Family: Polymer, Algaecide 15% by weight
EPA reg. no. 48520-14-87892
CAS no. 31512-74-0

Product Description: Clear pale yellow/ brown liquid having a slight odor.
Type of Product and use: Algaecide for laboratory use.

Supplier: Phoenix Products Company
Distributor: PolyScience
Address: 55 Container Drive
Address: 6600 W. Touhy Ave.
City: Terryville, CT 06786
City: Niles, IL 60714
Telephone: (860)589-7502
Telephone: (847)647-0611

Emergency Telephone: U.S. PERS Emergency Telephone 1-800-633-8253

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:
Clear liquid
Irritating to eyes
Harmful if inhaled or swallowed

POTENTIAL HEALTH EFFECTS:
Eye Contact: Irritating to eyes, produces minimal effects in the form of erthema, chemosis, and discharge.
Skin Contact: Will not cause skin irritation.
Inhalation: Harmful if inhaled.
Ingestion: Harmful if swallowed.

NFPA Ratings (0-4):
- Health: 1
- Fire: 1
- Reactivity: 0

HMIS Ratings (0-4):
- Health: 1
- Fire: 1
- Reactivity: 0

3. COMPOSITION / INGREDIENTS INFORMATION

<table>
<thead>
<tr>
<th>COMPONENTS</th>
<th>CAS NO.</th>
<th>WEIGHT %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly(oxyethylene(dimethyliminio)ethylene( dimethyliminio)ethylene dichloride]</td>
<td>31512-74-0</td>
<td>14.5-16.1</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>82.5-87.5</td>
</tr>
</tbody>
</table>
4. **FIRST AID MEASURES**

**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.

**SKIN CONTACT:** Wash exposed area with plenty of water. Repeat washing. Remove contaminated clothing and wash thoroughly before reuse. If irritation persists consult a health care professional.

**INHALATION:** If inhaled, immediately move person to fresh air. If individual experiences nausea, headache, dizziness, has difficulty breathing or is cyanotic, seek a health care professional immediately.

**INGESTION:** DO NOT INDUCE VOMITING. Rinse with copious amounts of water or milk. 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 cases where the individual is semicomatose, comatose, or convulsing, DO NOT GIVE FLUIDS BY MOUTH. Take individual to nearest medical facility.

5. **FIRE-FIGHTING MEASURES**

**Suitable extinguishing media:** Water fog, carbon dioxide, foam, dry chemical.

**Extinguishing media not to be used:** N/A.

**Fire Fighting Procedure:** Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) in positive pressure mode. Cool containers with water spray. On small fires, use water spray or fog. On large fires, use heavy deluge or fog streams. Flooding amounts of water may be required before extinguishment can be accomplished.

**Unusual fire and explosion hazards:** None.

6. **ACCIDENTAL RELEASE MEASURES**

**PERSONAL PRECAUTIONS:** Before responding to a spill or leak of this product, review each section of MSDS. Follow recommendations given in STORAGE AND HANDLING sections. Check Fire and Explosion Data to determine if the use of non-sparking tools is 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.

**METHODS FOR CLEANING UP:** Initially minimize area affected by spill or leak. Block any potential routes to water systems (e.g. sewers, streams, lakes, etc.). Based on the product’s toxicochemical 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. Determine if federal, state and/or local release notification is required (see Regulatory Classifications section of this MSDS). Recover as much of the pure product as possible into appropriate containers. Later, determine if recovered product can be used for its intended use. Address cleanup of any 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 be readily 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 first. Insure any flushed materials do not come in contact with incompatible material. Contact person(s) responsible for the operation of your facility’s industrial sewer system prior to discharge.
### 7. STORAGE AND HANDLING

**HANDLING:** Avoid bodily contact. Do not take internally. Upon contact with skin or eyes, wash off with water. Eye fountains are recommended. Rubber gloves, safety glasses or goggles and body protective clothing and shoes are required.

**STORAGE:** Store in a dry, cool, well-ventilated area away from incompatible materials (see “materials to avoid”).

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**EXPOSURE LIMITS:**

<table>
<thead>
<tr>
<th>COMPONENTS</th>
<th>ACGIH-TLV Data</th>
<th>OSHA (PEL) Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly[oxyethylene(dimethyliminio)ethylene(</td>
<td>NOT DETERMINED</td>
<td>NOT DETERMINED</td>
</tr>
<tr>
<td>dimethyliminio)ethylene dichloride]</td>
<td></td>
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</tr>
</tbody>
</table>

- **Ventilation requirements:** General room ventilation plus local exhaust should be used to minimize exposure to vapors.
- **Personal Protective Equipment:**
  - **Respiratory protection:** A respiratory protection program that meets OSHA 1910.135 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator’s use.
  - **Eye protection:** Wear goggles or safety glasses with side shields when handling this product.
  - **Skin and body protection:** Wear rubber gloves when handling product. Avoid contact with skin.
- **Hygiene Measures:** Remove and wash contaminated clothing before reuse.
- **Other Precautions:** Facilities storing or utilizing this material should be equipped with an eyewash and safety shower.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance:** Clear pale yellow/brown liquid
- **Odor:** Mild
- **Boiling point/range:** >100˚C (212˚F)
- **Melting point/range:** -16˚C (3.2˚F)
- **Flash point:** Closed cup: >100˚C (212˚F)
- **Auto-ignition temperature:** Not applicable
- **Vapor pressure:** Not applicable under standard conditions
- **Evaporation rate (ether=1):** Not applicable under standard conditions
- **Vapor Density:** Not applicable under standard conditions
- **Water Solubility:** Soluble
- **pH:** 6 to 7
- **Bulk Density:** 8.92 lb/gal
- **Specific gravity:** 1.07
- **Decomposition Temperature:** N/A

### 10. STABILITY AND REACTIVITY

**STABILITY:** Stable under normal conditions.

**MATERIALS TO AVOID:** Anionic polymers
CONDITIONS TO AVOID: High temperature, poor ventilation, and/or contamination

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide may be formed upon burning.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:
- Male Rat oral LD50: 1951 mg/kg
- Female Rat oral LD50: 2587 mg/kg
- Rabbit dermal LD50: >2000 mg/kg
- Rat inhalation LC50: 2.9 mg/l/4 hour

TARGET ORGAN EFFECTS: May cause damage to the following organs: upper respiratory tract, skin, eyes.

TARGET ORGAN EFFECTS: Prolonged exposure may cause damage to the respiratory system. Chronic inhalation exposure may cause impairment of lung function and permanent lung damage.

MUTAGENICITY: None.

CARCINOGENICITY: This product is not considered a carcinogen.

OTHER HEALTH EFFECTS: None known.

12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY:
- 96 Hour-LC50, Fish:
  - 0.26 mg/l (Fathead minnow)
  - 0.21 mg/l (Bluegill sunfish)
  - 0.047 mg/l (Rainbow trout)
  - >600 mg/l (Sheepshead minnow)
  - 13 mg/l (Mysid shrimp)
  - 0.37 mg/l (Invertebrate)

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide or rinsate is a violation of Federal Law. 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. Do not contaminate water, food, or feed by storage or disposal or cleaning of equipment. Do not put product, spilled product, or filled or partially filled containers into the trash or waste compactor. Contact with incompatible materials could cause a reaction or fire.

CONTAINER: Nonrefillable container. Do not refill or reuse this container. Triple rinse or equivalent before discarding in trash.

14. TRANSPORTATION INFORMATION

DOT Classification: When this product is packaged in liquid-tight, plastic inner packages containing less than 1.3 gallons (5.0 Liters) net capacity each, and it is packed in strong outer packaging,
distributed and labeled for consumer use, it is renamed “Consumer Commodity” and it is reclassified as “ORM-D” as per 49CFR 173.154

UN No.: None
Proper Shipping Name: Consumer Commodity
Hazard Class: ORM-D

When this product is packaged in containers larger than 5.0L (1.3 gallons) net capacity each, it is considered a bulk material and must be labeled / placarded as follows:

UN No.: 3082
IMO: Environmentally Hazardous substance, liquid, N.O.S., (Cationic polymer)
Class: 9
Packing Group: III
Marking: MARINE POLLUTANT
Hazmat Code: 4960131

ICAO/IATA: Not regulated

15. REGULATORY INFORMATION

FIFRA: This is a registered pesticide. EPA Reg. No. 48520-14-87892

FDA: This product is not allowed for food contact uses.

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 components of this product are present above the de minimus levels.

TSCA (Toxic Substances Control Act) Applicability: All components may not be listed on the TSCA Inventory. Registered pesticides are exempt from the requirements of TSCA.

NSF: This product is listed by the NSF under NSF/ANSI Standard 60 for use in potable water applications with the following maximum allowable use rates: Concentrations of 2-5 ppm can be used at the initiation of treatment for up to 21 days. Thereafter, the maximum use rate is 0.5 ppm for potable water systems.

16. OTHER INFORMATION

NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANT ABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER NATURE, ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH THE INFORMATION REFERS.

REVISION 11-23-2010 RL EPA SUBREGISTRATION NUMBER ADDED

END OF MATERIAL SAFETY DATA SHEET