Section 1: Identification

Product Name: Polyclean Clarifier  Product Code:H005464

MANUFACTURER:
Haviland Consumer Products, Inc
421 Ann Street NW
Grand Rapids, MI 49504
(616) 361-6691

Distributor:
PolyScience
6600 W. Touhy Ave.
Niles, IL 60714
(847) 647-0611

Product Use: Industrial
Not recommended for: any other uses

Emergency Phone:
CHEMTREC: Canada and USA - (800) 424-9300
CHEMTREC: In Mexico - 01-800-681-9531

Section 2: Hazard(s) Identification

GHS Ratings:
- Oral Toxicity 4 Oral>300+<=2000mg/kg
- Inhalation Toxicity 4 Gases>2500+<=20000ppm, Vapors>10+<=20mg/l, Dusts&mists>1+<=5mg/l
- Eye corrosive 2B Mild eye irritant: Subcategory 2B, Reversible in 7 days

GHS Hazards
- H320 Causes eye irritation

GHS Precautions
- P264 Wash face, hands, and any exposed skin thoroughly after handling
- P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313 If eye irritation persists get medical advice / attention

Warning

Section 3: Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Name / CAS No.</th>
<th>OSHA Exposure Limits</th>
<th>ACGIH Exposure Limits</th>
<th>Other Exposure Limits</th>
</tr>
</thead>
</table>
Section 4: First-aid Measures

Inhalation
Rescuers should put on appropriate protective gear. Remove from area of exposure. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Keep victim warm. Get immediate medical attention. To prevent aspiration, keep head below knees.

Eye Contact
Immediately flush eyes with water. Flush eyes with water for a minimum of 15 minutes, occasionally lifting and lowering upper lids. Get medical attention promptly.

Skin Contact
Remove contaminated clothing. Wash skin with soap and water. Get medical attention. Wash clothing separately and clean shoes before reuse.

Ingestion
If swallowed, do NOT induce vomiting. Give victim a glass of water. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Section 5: Fire-fighting Measures

Extinguishing Media
Use media suitable for the surrounding fire.

Specific Hazards Arising from the Chemical
In a fire or if heated, a pressure increase will occur and the container may burst. Decomposition products may include:
Carbon dioxide, carbon monoxide, nitrogen oxides, and halogenated compounds.

Special Protective Equipment and Precautions for Firefighters
Special Information: As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA / NIOSH approved or equivalent) and full protective gear.

Section 6: Accidental Release Measures

Spill and Leak Procedures
No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Small Leak/Spill:
Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large Leak/Spill:
Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or...
Section 7: Handling and Storage

Handling Procedures
Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage Requirements
Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8: Exposure Control/Personal Protection

<table>
<thead>
<tr>
<th>Chemical Name / CAS No.</th>
<th>OSHA Exposure Limits</th>
<th>ACGIH Exposure Limits</th>
<th>Other Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Secret N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ENGINEERING CONTROLS: Provide ventilation sufficient to maintain exposure below the recommended limits.

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant the use of a respirator.

SKIN PROTECTION: Wear impervious protective gloves. Wear protective gear as needed - apron, suit, boots.

EYE PROTECTION: Wear safety glasses with side shields (or goggles) and a face shield.

OTHER PROTECTIVE EQUIPMENT: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

HYGENIC PRACTICES: Do not eat, drink, or smoke in areas where this material is used. Avoid breathing vapors. Remove contaminated clothing and wash before reuse. Wash thoroughly after handling. Wash hands before eating.

Section 9: Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Appearance: Clear Pale Yellow Liquid</th>
<th>Odor: Mild</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor Pressure: Not Available</td>
<td>Odor threshold: Not Available</td>
</tr>
<tr>
<td>Vapor Density: Not Available</td>
<td>pH: 6 to 8</td>
</tr>
<tr>
<td>Density: Not Available</td>
<td>Melting point: &lt; 0° C (&lt; 32° F)</td>
</tr>
<tr>
<td>Freezing point: Not Available</td>
<td>Solubility: Easily Soluble in Water</td>
</tr>
<tr>
<td>Boiling range: &gt; 100° C (&gt; 212° F)</td>
<td>Flash point: Closed cup: &gt; 100° C (&gt; 212° F) [Tagliaibue]</td>
</tr>
<tr>
<td>Evaporation rate: Not Available</td>
<td>Flammability: Not Available</td>
</tr>
<tr>
<td>Explosive Limits: Not Available</td>
<td>Specific Gravity 1.13 to 1.16</td>
</tr>
<tr>
<td>Autoignition temperature: Not Available</td>
<td>Decomposition temperature: Not Available</td>
</tr>
</tbody>
</table>
**Section 10: Stability and Reactivity**

**Chemical Stability:**
- STABLE

**Incompatible Materials**
No specific data.

**Conditions to Avoid**
No specific data.

**Hazardous Decomposition Products**
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**Hazardous Polymerization**
- Hazardous polymerization will not occur.

**Section 11: Toxicology Information**

**Mixture Toxicity**
- Oral Toxicity LD50: 1,951mg/kg
- Inhalation Toxicity LC50: 3mg/L

**Routes of Entry:**
- Inhalation
- Ingestion
- Eye contact

**Target Organs**
None known.

**Effects of Overexposure**

**Eye Contact:** Causes eye irritation. Adverse symptoms may include the following:
- irritation
- watering
- redness

**Inhalation:** Harmful if inhaled.

**Skin Contact:** No known significant effects or critical hazards.

**Ingestion:** Harmful if swallowed.

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**Section 12: Ecological Information**

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**Viscosity:** Dynamic (room temperature): 125 mPas (125 cP)

**Grams VOC less water:** Not Available
Section 13: Disposal Considerations

Dispose of in accordance with local, state and federal regulations.

Section 14: Transportation Information

This product is non-regulated for land transport.

Section 15: Regulatory Information

Potential impurities present in trace quantities are included in the regulatory listings of this section.

U.S. Federal regulations:
- United States inventory (TSCA 8b): All components are listed or exempted.
- Clean Water Act (CWA) 307: bis(2-chloroethyl) ether
- Clean Water Act (CWA) 311: bis(2-chloroethyl) ether

SARA 302/304
Composition/information on ingredients:

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>EHS</th>
<th>(lbs)</th>
<th>(gallons)</th>
<th>SARA 302 TPQ</th>
<th>SARA 304 RQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dichloroethyl ether</td>
<td>0.001</td>
<td>Yes.</td>
<td>10000</td>
<td>981.5</td>
<td>10</td>
<td>0.98</td>
</tr>
</tbody>
</table>

SARA 304 RQ: 1000000 lbs / 454000 kg [104745.9 gal / 396506.6 L]

SARA 311/312
Classification: Immediate (acute) health hazard

Composition/information on ingredients:
No products were found.

CERCLA: CERCLA: Hazardous substances: 1,4-dioxane: 100 lbs. (45.4 kg); bis(2-chloroethyl) ether

FDA: This product is allowed under the following FDA (21 CFR) sections: 176.170.

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.

FIFRA: This product is not a registered pesticide.

State regulations:
- California Prop. 65
  WARNING: This product contains less than 0.1% of a chemical known to the State of California to cause cancer.

Ingredient name  Cancer  Reproductive
1,4-dioxane     Yes.  No.
bis(2-chloroethyl) ether  Yes.  No.

Country  Regulation  All Components Listed

Section 16: Other Information

Date Prepared: 8/22/2018

Disclaimer
The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.

SDS for: 1.H005464.CS1208.std.2