Dynalene HC (heat transfer fluid)

1. Product and Company Identification

<table>
<thead>
<tr>
<th>Name of Product:</th>
<th>Dynalene HC (includes all concentrations)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Use:</td>
<td>Heat transfer fluid</td>
</tr>
<tr>
<td>Producer:</td>
<td>Dynalene, Inc.</td>
</tr>
<tr>
<td>Distributor Name:</td>
<td>Dynalene, Inc.</td>
</tr>
<tr>
<td>Address:</td>
<td>5250 West Coplay Road, Whitehall, PA 18052, USA</td>
</tr>
<tr>
<td>Emergency Phone:</td>
<td>1-800-424-9300 (CHEMTREC)</td>
</tr>
</tbody>
</table>

2. Hazards Identification

**Hazard Statements:**
H316. Causes mild skin irritation – Category 3  
H320. Causes eye irritation – Category 2B

**Precautionary Statements:**
P280. Wear protective gloves/eye protection/face protection.  
P501. Dispose of contents/container in accordance with local/regional/national/international regulation.

**GHS Pictogram:** Signal Word: Warning!

3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS No.</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissolved ionic solid</td>
<td>N/A</td>
<td>0-75%</td>
</tr>
<tr>
<td>Deionized water</td>
<td>7732-18-5</td>
<td>25-98%</td>
</tr>
<tr>
<td>Inhibitor Mixture</td>
<td>N/A</td>
<td>0-5%</td>
</tr>
</tbody>
</table>

4. First Aid Measures

**Skin Exposure:** If the product contaminates the skin, begin decontamination with running water. Remove exposed or contaminated clothing, taking care not to contaminate eyes. The recommended flushing time is 15 minutes if pain or irritation occurs. Contaminated individual must seek medical attention, especially if irritation or redness develops.

**Eye Exposure:** If the product enters the eyes, open victim's eyes while under gentle running water. Use sufficient force to open eyelids. Have victim "roll" eyes. Minimum flushing is for 15 minutes. Contaminated individual must seek immediate medical attention, especially if symptoms persist.

**Inhalation:** If vapors or mists of the product are inhaled, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Remove or cover gross contamination to avoid exposure to rescuers.

**Ingestion:** If the product is swallowed, call physician or poison control center for most current information. If professional advice is not available, do not induce vomiting. Contaminated individuals should drink milk, egg whites, or large quantities of water. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who is unable to swallow.

5. Fire Fighting Measures

**Fire Extinguishing Materials:** Water spray, carbon dioxide, foam, dry chemical, Halon, any "ABC" class.

**Unusual Fire and Explosion Hazards:** Dynalene HC is non-flammable, but when involved in a fire, this material may decompose and produce irritating vapors, toxic gases (e.g., oxides of carbon, potassium compounds), soot, and smoke.
Decomposition Products Under Fire Conditions: No unusual products.

Special Fire Fighting Procedures: Incipient fire responders should wear eye protection. Structural fire fighters must wear Self-Contained Breathing Apparatus and full protective equipment. Move fire-exposed containers if it can be done without risk to firefighters. If possible, prevent run-off water from entering storm drains, bodies of water, or other environmental areas. Decontaminate fire-response equipment with soap and water solution if necessary.

6. Accidental Release Measures

Spill and Leak Response: Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used.

Small Spill: Cover with absorbent material (floor absorbent, vermiculite, etc.). Soak up spill and place material into a drum.

Large Spill: Personnel involved with large release should wear protective equipment. Stop spill at source; dike the area surrounding the spill to prevent further exposure. Prevent material from entering sewer system. If pump is available, pump spilled material into 55-gallon drums for proper disposal. If necessary, absorbents such as vermiculite, clay, floor absorbent may be used on spill and shoveled into drums.

7. Handling and Storage

General Hygiene Considerations: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the day.

Storage and Handling Practices: Store containers in a cool; dry location, away from direct sunlight, or sources of intense heat. Keep containers away from incompatible chemicals. Keep drums and other containers of this product tightly closed when not in use. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged.

Protective Practices During Maintenance of Contaminated Equipment: Make certain application equipment is locked and tagged-out safely, if necessary. Decontaminate equipment using soapy water before maintenance begins.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:
- OSHA Permissible Exposure Limit (PEL): none established
- OSHA Short Term Exposure Limit (STEL): none established
- OSHA Immediately Dangerous to Life or Health (IDLH): none established
- ACGIH Threshold Limit Value (TLV): none established
- ACGIH Short Term Exposure Limit (STEL): none established

Ventilation and Engineering Controls: Use with adequate ventilation to minimize exposure to mists or sprays of this product.
Prudent practice is to ensure eyewash/safety shower stations are available near areas where this product is used.

Respiratory Protection: None needed for normal circumstances of use. If respiratory protection is needed, use only protection authorized in 29 CFR 1910.134, or applicable State regulations. Use supplied air respiration protection if oxygen levels are below 19.5% or are unknown.

Eye Protection: Wear safety glasses with side shields.

Hand Protection: Wear long sleeves and chemical resistant gloves.

Personal Protective Equipment Level: D

9. Physical and Chemical Properties

Relative Vapor Density (Air = 1):
Not available.

Evaporation Rate (N-Buac=1):
Similar to water

Specific Gravity:
>1.1 at 68°F

Melting Point:
< 32°F

Solubility in Water:
Soluble.

Boiling Point:
> 212°F

Vapor Pressure:
Not available.

Viscosity:
>1.0 cP at 68°F

Odor:
Odorless.

Odor Threshold:
Not available.
**Physical State:**
Liquid.

**pH:**
7.0 to 11.0

**Partition Coefficient:**
Not available.

**Decomposition Temperature:**
Not available.

**Flammability (solid, gas):**
Not available.

**Molecular Weight:**
Mixture.

**Color:**
Clear to light yellow.

**Flash Point:**
Not applicable.

**Autoignition Temperature:**
Not applicable.

**Flammable Limits (in air by vol %):**
Lower (LEL): Not applicable; Upper (UEL): Not applicable.

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**10. Stability and Reactivity**

**Stability:** Stable under ordinary conditions of use and storage.

**Hazardous Decomposition Products:** None under normal conditions.

**Materials With Which Substance Is Incompatible:** Strong oxidizing agents.

**Hazardous Polymerization:** Will not occur.

**Conditions to Avoid:** Avoid contact with heat, sparks, open flame, static discharge, and sources of ignition.

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**11. Toxicological Information**

**Acute Oral Toxicity:** LD50: >5500 mg/kg (rat).

**Suspected Cancer Agent:** This product's ingredients are not found on the following lists: FEDERAL OSHA Z LIST, NTP, IARC, CAL/OSHA, and therefore are not considered to be, nor suspected to be cancer causing agents by these agencies.

**Reproductive Toxicity Information:** This product is not reported to produce mutagenic, embryotoxic, teratogenic, or reproductive effects in humans.

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**12. Ecological Information**

**Acute Aquatic Toxicity:** LC50 (96 hr): >1000 mg/L (rainbow trout).

**Biodegradation:** 92% (28 days).

**Effect of Material on Plants or Animals:** This product may be harmful to contaminated plant and animal life (especially if large quantities are released).

**Effect of Chemical on Aquatic Life:** This product may be harmful to aquatic life if large quantities are released into bodies of water.

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**13. Disposal Considerations**

Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

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**14. Transportation Information**

**Proper Shipping Name:** Not applicable.

**UN Number:** Not applicable.

**Packing Group:** Not applicable.

**Labels Required:** Not applicable.

**Marine Pollutant:** No component of this product is listed as a Marine Pollutant (49 CFR 172.101, Appendix B).

**Transport Canada Transportation of Dangerous Goods Regulations:** This material is not considered as dangerous goods.
15. Regulatory Information

**SARA Reporting Requirements:** The components of this product are not subject to the reporting requirements of Sections 302, 304 and 313 of Title III of the Superfund Amendments and Reauthorization Act.

**TSCA Inventory Status:** The components of this product are on the TSCA Inventory.

**California Proposition 65:** This product does not contain a chemical known to the state of California to cause cancer.

16. Other Information

**Revision Date:** July 19th, 2013

This MSDS was prepared by Dynalene, Inc.

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Dynalene Heat Transfer Fluids assumes no responsibility for injury to the vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, Dynalene Heat Transfer Fluids assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in his use of the material.