

# Dynalene IC093 Ion Exchange Resin

## 1. Product and Company Identification

<b>Name of Product:</b>	Dynalene IC093	<b>Product Use:</b>	Heat transfer fluid
<b>Synonyms:</b>	High temperature ion exchange resin cartridge	<b>Producer:</b>	Dynalene, Inc.
<b>Chemical Name:</b>	Ion exchange resin	<b>Distributor Name:</b>	Dynalene, Inc.
<b>CAS No.:</b>	Not applicable to mixtures	<b>Address:</b>	5250 West Coplay Road Whitehall, PA 18052, USA Tel: 1-610-262-9686
<b>Emergency Phone:</b>	1 -800-424-9300 (CHEMTREC)		

## 2. Hazards Identification

### Hazard Statements:

H318 Causes serious eye damage.

\*Classification according to Regulation (EC) No 1272/2008

### Precautionary Statements:

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 if in eye: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a poison center or doctor/physician.

### GHS Pictogram:



**Signal Word:** Danger

## 3. Composition/Information on Ingredients

Ingredient	CAS No.	Percent
Trimethylamine functionalized chlormethylated copolymer of styrene and divinylbenzene in the hydroxide form	CAS# 69011-18-3	20 – 50%
Sulfonated copolymer of styrene and divinylbenzene in the hydrogen form	CAS# 69011-20-7	10 – 30%
Water	CAS# 7732-18-5	40 - 70%)

This document is prepared pursuant to the OSHA Hazard Communication Standard (29CFR 1910.1200). In addition, other substances not 'Hazardous' per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.

## 4. First Aid Measures

**General information:** Instantly remove any clothing soiled by the product. People who have inhaled the product or the brand developed fumes or have come into contact with the product may not show immediate symptoms. Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

**Skin Exposure:** Instantly wash with water and soap and rinse thoroughly.

**Eye Exposure:** Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.

**Inhalation:** Supply fresh air; consult doctor in case of symptoms.

**Ingestion:** Induce vomiting, only if the person affected is fully conscious. Rinse out mouth and then drink plenty of water. Seek medical treatment.

## 5. Fire Fighting Measures

**Fire Extinguishing Materials:** Water spray, carbon dioxide, foam, dry chemical.

**Flammable Limits:** 800°F

**Unusual Fire & Explosion Hazards:** Product is not combustible until moisture is removed. If the resins are completely dehydrated, the resin starts to burn in flame at 446°F. Autoignition occurs above 932°F, possible fire.

**Combustion Products:** Alkylbenzenes, vinylbenzenes, naphthalene, benzaldehydes, phenol, carbon dioxide, water, organic amines, chlorine, nitrogen oxides, ammonia, methyl chloride.

**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 runoff water from entering storm drains, bodies of water, or other environmental areas. Decontaminate fire-response equipment with soap and water solution if necessary.

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## 6. Accidental Release Measures

**Spill and Leak Response:** Ensure there is adequate ventilation. Wear protective equipment. Keep unprotected persons away. Do not allow to enter drainage system, surface or ground water. Collect the material mechanically. Dispose of contaminated material as waste according to chapter 13. Be careful, the floor will be slippery. Absorb liquid components with liquid-binding material. If material reaches the soil, inform authorities responsible for such cases.

### Personal precautions, protective equipment and emergency procedures, reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

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## 7. Handling and Storage

**Precautions for safe handling:** Keep away from heat and direct sunlight. Ensure good ventilation/exhaustion at the workplace. Information about protection against explosions and fires: The product is combustible. Protect against electrostatic charges.

**Conditions for safe storage, including any incompatibilities storage:** Store only in the original container when stored in a storage in one common storage facility. Do not store with foodstuffs, animal feed and flammable materials when storage in one common storage facility

**Further information about storage conditions:** Keep container tightly sealed. Store in cool, dry conditions in well sealed containers. Protect from heat and direct sunlight. Keep at temperature not exceeding 104°F. Recommended storage temperature: -14 to 104°F

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## 8. Exposure Controls/Personal Protection

### Control parameters:

*Components with critical values that require monitoring at the workplace:* The product does not contain any relevant quantities of materials with critical values that have to be monitored in the workplace.

### Exposure controls

*Personal protective equipment and General protective and hygienic measures:* The usual precautionary measures should be adhered to in handling the chemicals. Instantly remove any soiled and impregnated garments. Do not inhale dust / smoke / mist. Avoid contact with the eyes. Do not eat, drink or smoke while working. Wash hands during breaks and at the end of the work.

*Breathing equipment:* In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.

*Protection of hands:* The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests, no recommendation of the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

*Material of gloves:* PVC gloves, Nitrile rubber, NBR, Chloroprene rubber, CR. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

*Penetration time of glove material:* The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

*Eye protection:* Tightly sealed safety glasses

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## 9. Physical and Chemical Properties

### Appearance:

Form: Solid

Color: Yellowish white and black beads

Smell: Amine-like

**Odor threshold:** Not determined.

**pH-value (100 g/l) at 68 °F:** 6-9

**Melting point/Melting range:** Not determined

**Boiling point/Boiling range:** Not determined

**Flash point:** Not applicable  
**Inflammability (solid, gaseous):** Not determined.  
**Ignition temperature:** Not determined.  
**Decomposition temperature:** Not determined.  
**Self-inflammability:** >932°F  
**Danger of explosion:** Product is not explosive.  
**Critical values for explosion:**  
Lower: Not determined.  
Upper: Not determined.  
**Vapor pressure:** Not applicable.

**Density at 68 °F:** 1.2 kg/L  
**Relative density:** Not determined.  
**Thermal:** May yield oxides of carbon and nitrogen  
**Vapor density:** Not applicable.  
**Evaporation rate:** Not applicable.  
**Solubility in / Miscibility with Water:** insoluble  
**Partition coefficient (n-octanol/water):** Not determined.  
**Viscosity:**  
Dynamic: Not applicable.  
Kinematic: Not applicable.

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## 10. Stability and Reactivity

**Stability:** No decomposition if used according to specifications. No decomposition if used and stored according to specifications.  
**Possibility of hazardous reactions:** No dangerous reactions known  
**Conditions to avoid:** Heat, ignition sources (temperature above 400°F)  
**Incompatible materials:** Keep away from strong oxidizing agent like nitric acid.  
**Hazardous decomposition products:** Alkylbenzenes, vinylbenzenes, naphthalene, benzaldehydes, phenol, carbon dioxide, water, organic amines, chlorine, nitrogen oxides, ammonia, methyl chloride.

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## 11. Toxicological Information

### Acute toxicity:

*LD/LC50 values that are relevant for classification:* Oral LD50 >2000 mg/kg (rat)

### Primary irritant effect:

*On the skin:* No irritant effect.

*On the eye:* Strong irritant with the danger of severe eye injury.

*Sensitization:* No sensitizing effect known.

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## 12. Ecological Information

### Toxicity:

*Aquatic toxicity:* No further relevant information available.

**Persistence and degradability:** No further relevant information available.

**Bioaccumulative potential:** No further relevant information available.

**Mobility in soil:** No further relevant information available.

**Ecotoxicological effects:** No ecological data available.

### Additional ecological information:

**General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

### Results of PBT and vPvB assessment

*PBT:* Not applicable.

*vPvB:* Not applicable.

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## 13. Disposal Considerations

Waste disposal must be in accordance with appropriate Federal, State, and local regulations. Contact manufacturer for recycling information.

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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

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

## 15. Regulatory InformationL

### Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

#### Hazard pictogram



GHS05

**Signal word:** Danger

#### Hazard-determining components of labelling:

Trimethylamine functionalized chlormethylated copolymer of styrene and divinylbenzene in the hydroxide form

Sulfonated copolymer of styrene and divinylbenzene in the hydrogen form

#### Hazard statements:

H318 Causes serious eye damage.

#### Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 if in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a Poison Center or doctor/physician.

#### National regulations

*Water hazard class:* Water hazard class 1 (Self-assessment): slightly hazardous for water.

*Chemical safety assessment:* A Chemical Safety Assessment has not been carried out.

#### Canadian Regulations:

*WHMIS Information:* The Canadian Workplace Hazardous Materials Information System (WHMIS) Classification for this product is: This product is not a "Controlled Product" under WHMIS.

*Canadian TDG Information:* For guidance, the Transportation of Dangerous Good Classification for this product is: Not regulated

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## 16. Other Information

**Revision Date:** May 30<sup>th</sup>, 2014

This MSDS was prepared by Dynalene, Inc.

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