



## Section 2A: Hazard classification UN OSHA globally harmonized system



### **WARNING**

**(contains ion exchange resin)**

**H320: Causes eye irritation (Category 2B)**

#### **Precautionary Statements**

P264: Wash hands thoroughly after handling.

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

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

P333+313: If skin irritation or a rash occurs: Get medical advice/attention.

P337+313: If eye irritation persists get medical advice/attention.

P403+233: Store in a well-ventilated place. Keep container tightly closed.

P411: Store at temperatures not exceeding 50 °C/ 122 °F.

Please refer to the safety data sheet for additional information regarding this product

Aries FilterWorks.  
117 Jackson Road  
Berlin, NJ 08009  
856 626-1550  
Info@ariesfilterworks.com

### Section 3: Composition/ Information on Ingredients

|    |   |   |
|----|---|---|
| 3a | Chemical name   | Dimethyl ethanolamine functionalized chloromethylated copolymer of polystyrene in the chloride form impregnated with hydrated iron oxide. |
| 3b | Ingredients<br>Dimethyl-ethanolamine functionalized chloromethylated copolymer of styrene and divinylbenzene in the chloride form | CAS# 69011-15-0 (35 - 50%)  |
| 3c | Ferric hydroxide<br>Water   | CAS# 20344-49-4 (10 – 20%)<br>CAS# 7732-18-5 (30 – 45%)   |

### Section 4: First Aid Measures

|    |             |  |
|----|-------------|--|
| 4a | Inhalation  | No adverse effects expected - normal use of product does not produce odors or vapors.  |
| 4b | Skin        | Wash with soap and water - seek medical attention if a rash develops.  |
| 4c | Eye contact | Wash immediately with water - seek attention if discomfort continues.  |
| 4d | Ingestion   | No adverse effects expected for small amounts, larger amounts can cause stomach irritation. Seek medical attention if discomfort occurs. |

### Section 5: Fire Fighting Measures

|    |                          |  |
|----|--------------------------|--|
| 5a | Flammability             | NFPA Fire rating = 1   |
| 5b | Extinguishing media      | Water, CO <sub>2</sub> , foam, dry powder  |
| 5c | Fire fighting Procedures | Follow general fire fighting procedures indicated in the work place. Seek medical attention if discomfort continues.                     |
| 5d | Protective Equipment     | MSHA/NIOSH approved self-contained breathing gear, full protective clothing.   |
| 5e | Combustion Products      | Carbon oxides and other toxic gasses and vapors.   |
| 5f | Unusual Hazards          | Product is not combustible until moisture is removed. Resin begins to burn at approximately 230° C. Auto ignition can occur above 500° C |

## Section 6: Accidental Release Measures

- |    |                           |   |
|----|---------------------------|---|
| 6a | Personal Precautions      | Keep people away, spilled resin can be a slipping hazard, wear gloves and safety glasses to minimize skin or eye contact. |
| 6b | Incompatible Chemicals    | Strong oxidants can create risk of combustion products similar to burning.  |
| 6c | Environmental Precautions | Keep out of public sewers and waterways.  |
| 6d | Containment Materials     | Use plastic or paper containers.  |
| 6e | Methods of Clean-up       | Sweep up material and transfer to containers.   |

## Section 7: Handling and Storage

- |    |                     |  |
|----|---------------------|--|
| 7a | Handling            | Avoid prolonged skin contact. Avoid contact with salts or with salty water to prevent premature exhaustion of the resin. Keep resin moist and avoid allowing resin to completely dry.  |
| 7b | Storage             | Store in a cool dry place (0° to 45° C) in the original shipping container. This product is thermally sensitive and will have reduced shelf life if subjected to extended periods of time at temperatures exceeding 50° C. Although freezing does not usually damage ion exchange resins, avoid repeated freeze thaw cycles. |
| 7c | TSCA considerations | Ion exchange resins should be listed on the TSCA Inventory in compliance with State and Federal Regulations.   |

## Section 8: Exposure Controls/Personal Protection

- |    |                              |                                   |
|----|------------------------------|-----------------------------------|
| 8a | OSHA exposure limits         | None noted.                       |
| 8b | Engineering Controls         | Provide adequate ventilation.     |
| 8c | Personal Protection Measures |                                   |
|    | Eye Protection               | Safety glasses or goggles.        |
|    | Respiratory Protection       | Not required for normal use.      |
|    | Protective Gloves            | Recommended for extended contact. |

## Section 9: Physical and Chemical Properties

|   |  |
|---|--|
| Appearance                              | Black or red beads approx 0.6 mm diameter. |
| Flammability or explosive limits        | Flammable above 500° C                     |
| Odor                                    | Little or no odor                          |
| Physical State                          | Solid                                      |
| Vapor pressure                          | Not available                              |
| Odor threshold                          | Not available                              |
| Vapor density                           | Not available                              |
| pH                                      | Near neutral.                              |
| Relative density                        | Approx 800 grams/Liter                     |
| Melting point/freezing point            | Does not melt, freezes at approx. 0 C      |
| Solubility                              | Insoluble in water and most solvents       |
| Boiling point                           | Does not boil                              |
| Flash point                             | Approx 500° C                              |
| Evaporation rate                        | Does not evaporate                         |
| Partition Coefficient (n-octanol/water) | Not applicable                             |
| Auto-ignition temperature               | Approx 500° C                              |
| Decomposition temperature               | Above 230° C                               |
| Viscosity                               | Not applicable                             |

## Section 10: Stability and Reactivity

|                              |  |
|------------------------------|--|
| 10a Stability                | Stable under normal conditions.  |
| 10b Conditions to Avoid      | Heat, exposure to strong oxidants.   |
| 10c Hazardous by-products    | Dimethyl-ethanolamine, charred polystyrene, aromatic acids and hydrocarbons, organic amines, nitrogen oxides, carbon oxides, chlorinated hydrocarbons. |
| 10d Incompatible materials   | Strong oxidizing agents (such as HNO <sub>3</sub> )  |
| 10e Hazardous Polymerization | Does not occur   |

## Section 11: Toxicological Information

|                               |  |
|-------------------------------|--|
| 11a Likely Routes of Exposure | Oral, skin or eye contact.   |
| 11b Effects of exposure       |  |
| Delayed                       | None known.  |
| Immediate (acute)             | None known.  |
| Chronic                       | None known.  |
| 11c Toxicity Measures         |  |
| Skin Adsorption               | Unlikely.  |
| Ingestion                     | Oral toxicity believed to be low but no LD50 has been established. |
| Inhalation                    | None known.  |

|                       |                                 |
|-----------------------|---------------------------------|
| 11d Toxicity Symptoms |                                 |
| Skin Adsorption       | Mild rash.                      |
| Ingestion             | Indigestion or general malaise. |
| Inhalation            | Unknown.                        |
| 11e Carcinogenicity   | None known                      |

## Section 12: Ecological information

|                           |  |
|---------------------------|--|
| 12a Eco toxicity          | Not acutely harmful to plant or animal life. |
| 12b Mobility              | Insoluble.                                   |
| 12c Biodegradability      | Not biodegradable.                           |
| 12d Bioaccumulation       | Insignificant.                               |
| 12e Other adverse effects | Not Harmful to the environment.              |

## Section 13: Disposal Considerations

|                                  |   |
|----------------------------------|---|
| 13a General considerations       | Material is non-hazardous.  |
| 13b Disposal Containers          | Most plastic and paper containers are suitable.                               |
| 13c Disposal methods             | No specific method necessary.   |
| 13d Sewage Disposal              | Not recommended.  |
| 13e Precautions for incineration | May release organic amines and toxic vapors when burned.                      |
| 13f Precautions for landfills    | Resins used to remove hazardous materials may then become hazardous mixtures. |

## Section 14: Transportation Information

|                          |  |
|--------------------------|--|
| 14a Transportation Class | Not classified as a dangerous good for transport by land, sea, or air. |
| 14b TDG                  | Not regulated.   |
| 14c IATA                 | Not regulated.   |
| 14d DOT (49 CFR 172.101) | Not Regulated.   |

## Section 15: Regulatory Information

|                                   |                          |
|-----------------------------------|--------------------------|
| 15a CERCLA                        | Not regulated            |
| 15b SARA Title III                | Not regulated            |
| 15c Clean Air act                 | Not regulated            |
| 15d Clean Water Act               | Not regulated            |
| 15e TSCA                          | Not regulated            |
| 15f Canadian Regulations<br>WHMIS | Not a controlled product |

TDG  
15g Mexican Regulations

Not regulated  
Not Dangerous

### Section 16: Other Information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features. Regulatory requirements are subject to change and may differ from one location to another. It is the buyer's responsibility to ensure that their activities comply with federal, state, and local laws.

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