

# MATERIAL SAFETY DATA SHEET

## 1. CHEMICAL IDENTITY

|  |                          |  |  |
|--|--------------------------|--|--|
| <b>Chemical Name / Synonyms :</b><br>Strong acid cation Exchange Resin &<br>Strong Base Anion Exchange Resin |                          | <b>Chemical Classification :</b> Non-Hazardous |  |
|  |                          | <b>Trade Name :</b> Tulsion MB-108P            |  |
| <b>Formula :</b> N. A.   | <b>C.A.S. No. :</b> N.A. | <b>U. N. No. :</b> N. A.                       | <b>Ionic Form :</b> Hydrogen & Hydroxide |
| <b>Regulated Identification</b>  |                          | <b>Shipping Name :</b> N.A.                    | <b>Hazchem No. :</b> N. A.               |
|  |                          | <b>Hazardous waste I. D. No. :</b> N. A.       |  |
| <b>Hazardous Ingredients*</b>  | <b>C.A.S. No.</b>        | <b>Amount %</b>                                | <b>TWA / TLV</b>                         |
| 1. Mixture of Strong acid cation Exchange Resin & Strong Base Anion Exchange Resin                           |                          | 40 - 45  | NE                                       |
| 2. Water   | 7732 - 18 - 5            | 55 - 60  | NE                                       |
|  |                          |  |  |
|  |                          |  | NE = None Established                    |

\* As defined in 29 CFR 1910.1200

## 2. PHYSICAL AND CHEMICAL DATA

|                                     |   |
|-------------------------------------|---|
| <b>Physical State :</b> Solid       | <b>Vapour Density ( Air = 1 ) :</b> N. A.                   |
| <b>Appearance :</b> Spherical beads | <b>Vapour pressure @ 35 °C, mm Hg :</b> N. A.               |
| <b>Boiling Point :</b> N. A.        | <b>Solubility in water @ 30°C :</b> Insoluble               |
| <b>Melting Point :</b> N. A.        | <b>Specific Gravity ( H<sub>2</sub>O = 1 ) :</b> 1.1 to 1.2 |
| <b>Freezing Point :</b> N. A.       | <b>Evaporation Rate ( B. A. = 1 ) :</b> N. A.               |
| <b>Odour :</b> Nil                  | <b>% Volatiles :</b> 55 - 60                                |
| <b>pH :</b> 5 - 9                   |   |

## 3. FIRE AND EXPLOSION HAZARD DATA

|  |                                   |                                  |   |
|--|-----------------------------------|----------------------------------|---|
| <b>Flammability</b><br>No                                | <b>LEL %</b><br>N. A.             | <b>Flash Point ° C</b><br>N. A.  | <b>Auto - ignition temp.</b><br>427 °C / 800 Deg. F |
| <b>TGD Flammability</b><br>N. A.                         | <b>UEL %</b><br>N. A.             | <b>Flash Point ° C</b><br>N. A.  | <b>( Hazardous )<br/>combustion<br/>products</b>    |
| <b>Explosion Sensitivity to impact</b> : Nil             |                                   |                                  |   |
| <b>Explosion Sensitivity to Static Electricity</b> : Nil |                                   |                                  |   |
| <b>Hazardous Polymerisation</b> : Will not occur         |                                   |                                  |   |
| <b>Combustible Liquid :</b> N. A.                        | <b>Explosive Material :</b> N. A. | <b>Corrosive Material:</b> N. A. |   |
| <b>Flammable Material:</b> N. A.                         | <b>Oxidiser</b> : N. A.           | <b>Others</b> : N. A.            |   |

|                                   |                                 |  |
|-----------------------------------|---------------------------------|--|
| <b>Pyrophoric Material:</b> N. A. | <b>Organic Peroxide</b> : N. A. |  |
|-----------------------------------|---------------------------------|--|

#### 4. REACTIVITY DATA

|  |   |
|--|---|
| <b>Chemical Stability</b>                  | : Chemically stable. Avoid temperatures above 220° C / 428 Deg. F |
| <b>Incompatibility with other material</b> | : Avoid strong oxidising agents such as Nitric acid.              |
| <b>Reactivity</b>                          | : N. A.   |
| <b>Hazardous reaction products</b>         | : N. A.   |

#### 5. HEALTH HAZARD DATA

| <b>Routes of Entry</b>                            | <b>Effects of Exposure / Symptoms</b>  | <b>Emergency Treatment</b>                     |                                       |                         |
|---|--|--|---------------------------------------|-------------------------|
| Eye   | Solid or Dust may cause irritation or Corneal injury due to mechanical action.   | Wash thoroughly with water                     |                                       |                         |
| Skin Contact                                      | Prolonged or repeated exposure not likely to cause any significant skin irritation   | N. A.  |                                       |                         |
| Skin Absorption                                   | Skin absorption is unlikely due to physical properties.  | N. A.  |                                       |                         |
| Inhalation  | Vapours are unlikely due to physical properties.   | N. A.  |                                       |                         |
| Ingestion   | Single dose Oral LD <sub>50</sub> has not been determined. Single dose Oral toxicity is believed to be low. No hazardous anticipated from ingestion incidental to industrial exposure. |  |                                       |                         |
| Systemic and other effects                        | No specific data available. However repeated exposure is not anticipated to cause any significant adverse effects.   |  |                                       |                         |
| <b>TLV ( ACGIH )</b>                              | : N. A.  | <b>STEL</b> : N. A.                            |                                       |                         |
| <b>Permissible Exposure Limit LD<sub>50</sub></b> | : N. A.  | <b>Odour Threshold LD<sub>50</sub></b> : N. A. |                                       |                         |
| <b>NFPA Hazard Signals</b> :                      | <b>Health</b><br>N. A.   | <b>Flammability</b><br>Non flammable           | <b>Stability</b><br>Chemically stable | <b>Special</b><br>N. A. |

#### 6. PREVENTIVE MEASURES

|   |  |
|---|--|
| <b>Personnel Protective Equipment</b> :   | Face mask , Impervious gloves , Splash goggles , Eye washer          |
| <b>Handling and Storage Precautions</b> : | Store in a cool enclosed place. Avoid repeated freeze – thaw cycles. |

## 7. EMERGENCY AND FIRST AID MEASURE

|                 |                                   |   |
|-----------------|-----------------------------------|---|
| <b>FIRE</b>     | <b>Fire Extinguishing Media</b> : | Dry Chemical , CO <sub>2</sub> , Water fog  |
|                 | <b>Special Procedures</b> :       | Wear MSHA / NIOSH approved , pressure demand self contained breathing apparatus / equipment.  |
|                 | <b>Unusual Hazards</b> :          | N. A.   |
| <b>EXPOSURE</b> | <b>First Aid Measures</b> :       | N. A.   |
|                 | <b>Antidotes / Dosages</b> :      | N. A.   |
| <b>SPILLS</b>   | <b>Steps to be taken</b> :        | Sweep up immediately.   |
|                 | <b>Waste Disposal Method</b> :    | <ol style="list-style-type: none"> <li>1. Landfill / Incineration</li> <li>2. New material may be disposed off as ordinary trash.</li> <li>3. Used material which has been contaminated with heavy metals or toxic substances must be treated as such.</li> <li>4. Disposal must be made in accordance with all local state and federal regulations.</li> </ol> |

## 8. ADDITIONAL INFORMATION

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| Do not pack column with dry resin. Dry beads expand when wetted , which may cause glass column to shatter.   |
| Strong oxidising agents such as Nitric acid can cause explosive reactions. Nitric acid regeneration should be carried out by experienced personnel only. |

## 9. MANUFACTURER / SUPPLIERS DATA

|   |   |
|---|---|
| <b>Thermax Limited ,</b><br><b>Chemical Division ,</b><br><b>Village Paudh , Post Majgaon ,</b><br><b>Taluka Khalapur ,</b><br><b>Dist. Raigad 410206 ,</b><br><b>India</b><br><b>Phone : 011/91/020/7120181/7120169</b><br><b>Fax : 011/91/020/7120206</b> | <b>Contact Person In Emergency :</b><br>Factory Manager             |
|   | <b>Local Bodies involved :</b><br>N. A.                             |
|   | <b>Standard Packing :</b><br>As per mentioned in literature leaflet |
|   | <b>Tremcard Details / Ref.</b><br>N. A.                             |
|   | <b>Others :</b> N. A.   |

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