

1 Identification

- **Trade name:** Tulsion MB 115 BG
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture**
Industrial water softening, demineralization, Ultrapure water production, Condensate polishing
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
M/s. Thermax Limited, Chemical Division,
97-E, General Block, MIDC Industrial Area,
Bhosari, Pune 411 026
India
- **Information department:**
Tel: 91-20-66128100/66128226/66128224
Off. No.: +91 -20-66128100/200
Fax No. 020-27120206
- **Emergency telephone number:** +91 20-66128100/200
24 hour emergency assistance: 00 91-20-66128100/200

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS07

Eye Irrit. 2A H319 Causes serious eye irritation.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Irritant

Risk of serious damage to eyes.

- **Information concerning particular hazards for human and environment:**

The product has to be labeled due to the calculation procedure of international guidelines.

- **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- **Label elements**

- **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with directives on hazardous materials.

- **Code letter and hazard designation of product:**



Irritant

- **Risk phrases:**

Risk of serious damage to eyes.

- **Safety phrases:**

Keep out of the reach of children.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Wear eye/face protection.

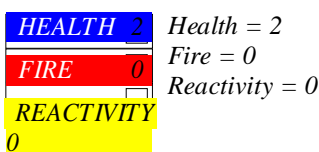
Trade name: Tulsion MB 115 BG

If swallowed, seek medical advice immediately and show this container or label.
Dispose of this material and its container to hazardous or special waste collection point.

- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

69011-20-7 & 69011-18-3	Mixture of Strong acid cation exchange resin and Strong base anion exchange resin, Type I	45 – 55
7732 – 18 – 5	Water	45 – 55

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
- **After skin contact:**
Wash affected skin with soap and water.
If skin irritation continues, consult a doctor.
- **After eye contact:** Flush eyes with plenty of water for at least 15 minutes. If irritation develops consult doctor.
- **After swallowing:**
Do not induce vomiting.
Seek immediate medical advice.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Information for doctor:** Treat symptomatically.

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- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Nitrogen oxides (NO_x)
Hydrogen chloride (HCl)
Carbon oxides
- **Advice for firefighters**
Wear suitable protective clothing to avoid contact with skin.
Wear self-contained respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Avoid formation of dust.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **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 disposal information.

7 Handling and storage

- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of dust.
Prevent formation of aerosols.
Avoid contact with eyes and skin.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool, dry, well-ventilated area away from incompatible substances.
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** Store in original containers.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:**
Use adequate ventilation to keep airborne concentrations low.

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- **Control parameters**
- **Components with limit 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 at the workplace.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
- **Breathing equipment:** Filter A/P2
- **Protection of hands:**



Protective gloves

- **Material of gloves**
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
- **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 goggles

- **Body protection:** Protective work clothing

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Solid
Color:	Yellow colored spherical beads
Odor:	Amine Like
- **pH-value:** 6-9
- **Change in condition**

Melting point/Melting range:	-
Boiling point/Boiling range:	Not applicable.
- **Flash point:** 58.8 °C (138 °F)
- **Ignition temperature:**
- **Decomposition temperature:** Not determined.
- **Auto igniting:** The product does not show self ignition.

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· Danger of explosion:	Product does not present an explosion hazard.
· Vapor pressure at 25 °C (77 °F):	0.874 mmHg
· Density:	Not determined.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with Water:	Insoluble.
· Partition coefficient (n-octanol/water):	Not determined.
· Solvent content:	
Organic solvents:	0.0 %
Solids content:	45 – 55
· Other information	Specific gravity [H ₂ O = 1] = 1.1 to 1.2
% Volatiles = 45 – 55	

10 Stability and reactivity

- **Reactivity**
- **Chemical stability** Stable at ambient temperature and under normal conditions of use.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Avoid formation of dust.
- **Incompatible materials:** Avoid contact with strong oxidizing agents.
- **Hazardous decomposition products:** Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
 - **Acute toxicity:**
 - **Primary irritant effect:**
 - **on the skin:** May cause mild skin irritation.
 - **on the eye:** Strong irritant with the danger of severe eye injury.
 - **Sensitization:** No sensitizing effects known.
 - **Additional toxicological information:**
- The product shows the following dangers according to internally approved calculation methods for preparations:
- Irritant

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

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12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** Quantitative data on the ecological effect of this product are not available.
- **Persistence and degradability** Not easily biodegradable
- **Bioaccumulative potential** The product is not expected to be bioaccumulative .
- **Mobility in soil** No further relevant information 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 course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Dispose off waste material according to local, state and federal regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|--|-----------------|
| · UN-Number | |
| · DOT, ADR, ADN, IMDG, IATA | Void |
| · UN proper shipping name | |
| · DOT, ADR, ADN, IMDG, IATA | Void |
| · Transport hazard class(es) | |
| · DOT, ADR, ADN, IMDG, IATA | |
| · Class | Void |
| · Packing group | |
| · DOT, ADR, IMDG, IATA | Void |
| · Environmental hazards: | |
| · Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · UN "Model Regulation": | - |

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15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

- **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

- **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

- **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

- **Proposition 65**

- **Chemicals known to cause cancer:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

- **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

TLV (ACGIH): 1000 ppm.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

- **Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

- **Hazard symbols:**



Irritant

- **Risk phrases:**

Risk of serious damage to eyes.

- **Safety phrases:**

Keep out of the reach of children.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Wear eye/face protection.

If swallowed, seek medical advice immediately and show this container or label.

Dispose of this material and its container to hazardous or special waste collection point.

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

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16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous

Goods by Rail) ICAO: International Civil

Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial

Hygienists EINECS: European Inventory of Existing

Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A