

1 Identification

- **Trade name:** Tulsion CH –95
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture**
Mercury removal
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Thermax Limited, Chemical Division,
Plot No. 93-94 (Instead of 97), BG Block,
MIDC, Bhosari, Pune 41102697[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 91-20-66128100/200

2 Hazard(s) identification

- **Classification of the substance or mixture**



Eye Irrit. 2A H319 Causes serious eye irritation.

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



Irritating 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.
- **Precautionary Statements:**
P264 Wash ... thoroughly after handling (Manufacturer/supplier to specify parts of the body to be washed after handling.).
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

- **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:**



- **Risk phrases:**
Irritating to eyes.
- **Safety phrases:**
Keep out of the reach of children.
Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
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.

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



Health = 1
Fire = 0
Reactivity = 0

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



Health = 1
Fire = 0
Reactivity = 0

- **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.

· **Components:**

71010-99-6	Styrene-DVB copolymer with Thiourea functional group in chloride form	47-52%
7732-18-5	water, distilled, conductivity or of similar purity	55-60%

4 First-aid measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:**
If inhaled remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.
- **After skin contact:**
Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.
- **After eye contact:**
Flush eyes thoroughly with water for at least 15 minutes occasionally lifting upper and lower eyelids. Get medical aid from preferably an ophthalmologist.
- **After swallowing:** If swallowed, wash out mouth with water provided person is conscious. Call a physician.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Information for doctor:** Treat symptomatically.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Water spray, Carbon dioxide, Dry chemical powder or appropriate foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters** Wear suitable protective clothing. Wear self-contained breathing apparatus.-
- **Protective equipment:** Use personal protective equipment.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Avoid the contact with eyes.

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- **Environmental precautions:** *Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.*
- **Methods and material for containment and cleaning up:**
*Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.*
- **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**
Avoid contact with skin / eyes. Avoid prolonged or repeated exposure. Wash thoroughly after handling.
- **Information about protection against explosions and fires:** *No special measures required.*
- **Conditions for safe storage, including any incompatibilities**
Store in a cool enclosed place. Avoid repeated freeze – thaw cycles.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** *Store in a cool location.*
- **Information about storage in one common storage facility:** *Store away from incompatible materials.*
- **Further information about storage conditions:**
*Store receptacle in a well ventilated area.
Keep receptacle tightly sealed.*
- **Specific end use(s)** *Mercury removal*

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** *No further data; see item 7.*
- **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:**
*Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.*
- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device 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 to 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**
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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **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.

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· **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:	Solid (Moist)
· Form:	Beads
· Color:	Buff colored
· Odor:	Odorless
· Odour threshold:	Not determined.

· pH-value:	Not determined.
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· **Change in condition**

· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	Undetermined.

· Flash point:	Not applicable.
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· Flammability (solid, gaseous):	Not applicable.
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· **Ignition temperature:**

· Decomposition temperature:	Not determined.
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· Auto igniting:	Product is not self igniting.
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· Danger of explosion:	Product does not present an explosion hazard.
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· **Explosion limits:**

· Lower:	Not determined.
· Upper:	Not determined.

· Vapor pressure:	Not determined.
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· Density at 20 °C (68 °F):	1.1- 1.2 g/cm ³
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· Solubility in / Miscibility with Water:	Insoluble.
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· Partition coefficient (n-octanol/water):	Not determined.
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· **Viscosity:**

· Dynamic:	Not determined.
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· Kinematic:	Not determined.
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· Other information	% Volatiles: 55-60 Max.
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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** Hazardous polymerization will not occur.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** Avoid contact with strong oxidizing agents.

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- **Hazardous decomposition products:**
Hazardous decomposition products depend upon temperature, air supply and the presence of other materials. Hazardous decomposition products may include and not limited to Carbon monoxide, Carbon dioxide, aromatic compounds, Hydrocarbons, Organic sulfonates and sulfur oxides.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
 - **on the skin:** No irritant effect.
 - **on the eye:** Irritating effect.
- **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)
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None of the ingredients is listed.

ACGIH:

None of the ingredients is listed.

OSHA:

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No appreciable biodegradation is expected.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** In the terrestrial environment, material is expected to remain in the soil.
- **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:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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- **Uncleaned packagings:**
- **Recommendation:** *Disposal must be made according to official regulations.*

14 Transport information

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

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture
· Sara
· Section 355 (extremely hazardous substances):
<i>None of the ingredients is listed.</i>
· Section 313 (Specific toxic chemical listings):
<i>None of the ingredients is listed.</i>
· TSCA (Toxic Substances Control Act):
<i>All ingredients are listed.</i>
· Proposition 65
· Chemicals known to cause cancer:
<i>None of the ingredients is listed.</i>
· Chemicals known to cause reproductive toxicity for females:
<i>None of the ingredients is listed.</i>
· Chemicals known to cause reproductive toxicity for males:
<i>None of the ingredients is listed.</i>
· Chemicals known to cause developmental toxicity:
<i>None of the ingredients is listed.</i>
· Carcinogenic categories
· EPA (Environmental Protection Agency)
<i>None of the ingredients is listed.</i>

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· **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.

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

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:**

Irritating to eyes.

· **Safety phrases:**

Keep out of the reach of children.

Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).

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.

· **National regulations:**

· **Other regulations, limitations and prohibitive regulations**

· **Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

· **Pennsylvania Right To Know Components**

Mentioned in Section 3.

· **New Jersey Right To Know Components**

Mentioned in Section 3.

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

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:**

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