


SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** Trimethylammonium chloride, 70 % aqueous solution
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the preparation:** Raw material for the chemical industry
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Balchem Corporation
52 Sunrise Park Road
New Hampton, NY 10958
USA
Tel.: +1 845-326-5600
Fax: +1 845-326-5717

Balchem Italia Srl
Via del Porto, snc
28040 Marano Ticino (NO) - Italy
Tel.: 0039-(0)3219791

Email: sds@balchem.com
- **1.4 Emergency telephone number:**
CHEMTREC:
800-4249300 (USA)
+1 7035273887 (International)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
Xi; Irritant
R36/38: Irritating to eyes and skin.
- **Information concerning particular hazards for human and environment:**
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**

GHS07
- **Signal word** Warning

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· Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

· Precautionary statements

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

P264 Wash thoroughly 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.P332+P313 **If skin irritation occurs:** Get medical advice/attention.P337+P313 **If eye irritation persists:** Get medical advice/attention.P302+P352 **IF ON SKIN:** Wash with plenty of water.

P362+P364 Take off contaminated clothing and wash it before reuse.

· 2.3 Other hazards**· Results of PBT and vPvB assessment****· PBT:** No**· vPvB:** No**SECTION 3: Composition/information on ingredients****· 3.2 Chemical characterization: Mixtures****· Dangerous components:**

CAS: 593-81-7

trimethylammonium chloride

65 - 70%

EINECS: 209-810-0

☒ Xi R36/38

☑ Skin Irrit. 2, H315; Eye Irrit. 2, H319

· Additional information: For the wording of the listed risk phrases refer to section 16.**SECTION 4: First aid measures****· 4.1 Description of first aid measures****· General information:** Take affected persons out of danger area and lay down.**· After inhalation:**

Supply fresh air; consult doctor in case of complaints.

In case of unconsciousness place patient stably in side position for transportation.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· After eye contact:

Rinse opened eye for several minutes under running water.

Remove contact lenses, if present and easy to do. Continue rinsing.

Seek medical treatment.

· After swallowing:

Rinse out mouth and then drink plenty of water.

If symptoms persist consult doctor.

· 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.**· 4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures**· 5.1 Extinguishing media****· Suitable extinguishing agents:**CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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Use fire extinguishing methods suitable to surrounding conditions.

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

· **5.2 Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

In case of fire, the following can be released:

Carbon monoxide

Carbon dioxide

Nitrogen oxides (NO_x)

Hydrogen chloride gas

· **5.3 Advice for firefighters**

· **Protective equipment:** Wear self-contained respiratory protective device.

· **Additional information**

Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation.

Wear protective clothing.

Avoid formation of dust.

Keep away from ignition sources.

· **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

· **6.3 Methods and material for containment and cleaning up:**

Ensure adequate ventilation.

Pick up mechanically.

Dispose of the material collected according to regulations.

· **6.4 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.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· **Information about fire and explosion protection:** No special measures required.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.

· **Information about storage in one common storage facility:**

Do not store together with alkalis (caustic solutions).

· **Further information about storage conditions:**

Store in cool, dry conditions in well sealed receptacles.

Store receptacle in a well ventilated area.

· **7.3 Specific end use(s)** No further relevant information available.

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SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients 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.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
*Do not eat, drink, smoke or sniff while working.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Avoid contact with the eyes and skin.
The usual precautionary measures are to be adhered to when handling chemicals.*
- **Respiratory protection:**
*In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
Filter P1
Filter ABEK-P2*
- **Protection of hands:**



Protective gloves

- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. 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.
 - **Eye protection:**



Tightly sealed goggles

- **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

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

| | |
|---------------------------|-----------------|
| · Form: | Liquid |
| · Colour: | Colourless |
| · Odour: | Fish-like |
| · Odour threshold: | Not determined. |

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| | |
|---|---|
| · pH-value at 20 °C: | 3 - 6 |
| · Change in condition | |
| Melting point/Melting range: | -8 °C |
| Boiling point/Boiling range: | 125 °C |
| · Flash point: | Not applicable. |
| · Flammability (solid, gaseous): | Not determined. |
| · Ignition temperature: | Not determined. |
| · Decomposition temperature: | Not determined. |
| · Self-igniting: | Product is not selfigniting. |
| · Danger of explosion: | Product does not present an explosion hazard. |
| · Explosion limits: | |
| Lower: | Not determined. |
| Upper: | Not determined. |
| · Oxidizing properties | No |
| · Vapour pressure at 100 °C: | 500 hPa |
| · Density: | Not determined. |
| · Relative density | Not determined. |
| · Vapour density at 20 °C | 1030 kg/cm ³ |
| · Evaporation rate | Not applicable. |
| · Solubility in / Miscibility with water: | Fully miscible. |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | |
| Dynamic at 20 °C: | 10 mPas |
| Kinematic: | Not determined. |
| · 9.2 Other information | No further relevant information available. |

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability** No decomposition if used and stored according to specifications.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Alkaline materials (bases)
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values relevant for classification:**

593-81-7 trimethylammonium chloride

Oral LD50 ca. 2000 mg/kg (Rat) (OECD Guideline 401)

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- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant

SECTION 12: Ecological information· **12.1 Toxicity**· **Aquatic toxicity:****593-81-7 trimethylammonium chloride**

EC50 (48h) (static) 139.95 mg/L (Daphnia) (79/831/EEC, Annex V, part C, Daphnia magna)

EC50 (72h) (static) 150 mg/L (Algae) (DIN 38412, part 9, Desmodesmus subspicatus)

· **12.2 Persistence and degradability**

Readily biodegradable

92 % @ 14 d (OECD Guideline 301C)

· **12.3 Bioaccumulative potential** Does not accumulate in organisms.· **12.4 Mobility in soil** No further relevant information available.· **Additional ecological information:**· **General notes:**Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow product to reach ground water, water course or sewage system.· **12.5 Results of PBT and vPvB assessment**· **PBT:** No· **vPvB:** No· **12.6 Other adverse effects** No further relevant information available.**SECTION 13: Disposal considerations**· **13.1 Waste treatment methods**· **Recommendation:** Must be specially treated adhering to official regulations.· **Uncleaned packaging**· **Recommendation:** Disposal must be made according to official regulations.**SECTION 14: Transport information**· **14.1 UN-Number**· **ADR, IMDG, IATA**

Void

· **14.2 UN proper shipping name**· **ADR, IMDG, IATA**

Void

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| | |
|---|--|
| · 14.3 Transport hazard class(es) | |
| · ADR, IMDG, IATA | |
| · Class | Void |
| · 14.4 Packing group | |
| · ADR, IMDG, IATA | Void |
| · 14.5 Environmental hazards: | |
| · Marine pollutant: | No |
| · 14.6 Special precautions for user | Not applicable. |
| · 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: | Not applicable. |
| · Transport/Additional information: | Not dangerous according to the above specifications. |
| · UN "Model Regulation": | - |

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Chemical Inventories:**
 - Canada - DSL
 - EU - EINECS
 - USA - TSCA
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 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.

- **Relevant phrases**
 - H315 Causes skin irritation.
 - H319 Causes serious eye irritation.
 - R36/38 Irritating to eyes and skin.
- **Department issuing SDS:**
 - Balchem Corporation
 - 52 Sunrise Park Road
 - New Hampton, NY 10958
 - USA
 - Tel.: +1 845-326-5600
 - Fax: +1 845-326-5717
 - Email: sds@balchem.com
- **Abbreviations and acronyms:**
 - REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
 - MARPOL: (from Marine Pollutant) International Convention for the Prevention of Marine Pollution from Ships
 - IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 - UN: United Nations (also UNO: United Nations Organization)
 - PBT: persistent, bioaccumulative and toxic
 - vPvB: very persistent and very bioaccumulative
 - NOEC: No Observed Effect Concentration
 - OECD: Organisation for Economic Co-operation and Development
 - ASTM: American Society for Testing and Materials
 - WAF: Water Accommodated Fraction

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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

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

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

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