

Revision Date 15-Dec-2011

Revision Number 3

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Identifier

Product Description: Bis(2-hydroxyethyl)dimethylammonium chloride
Cat No. 402530000; 402530050; 402530250
Synonyms Dimethyldiethanolammonium chloride

Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Laboratory chemicals
Uses advised against No Information available

Details of the supplier of the safety data sheet

Company

Acros Organics BVBA
 Janssen Pharmaceuticaaan 3a
 2440 Geel, Belgium

E-mail address begel.sdsdesk@thermofisher.com

Emergency Telephone Number

For information in the US, call: 001-800-ACROS-01
 For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99
 Emergency Number, US: 001-201-796-7100

CHEMTREC Phone Number, US: 001-800-424-9300
 CHEMTREC Phone Number, Europe: 001-703-527-3887

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

REGULATION (EC) No 1272/2008

| | |
|---|------------|
| Skin Corrosion/irritation | Category 2 |
| Serious Eye Damage/Eye Irritation | Category 2 |
| Specific target organ systemic toxicity (single exposure) | Category 3 |

Classification according to EU Directives 67/548/EEC or 1999/45/EC

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

Symbol(s) Xi - Irritant
R-phrases none
Risk Combination Phrases R36/37/38 - Irritating to eyes, respiratory system and skin

Bis(2-hydroxyethyl)dimethylammonium chloride

Revision Date 15-Dec-2011

SECTION 2. HAZARDS IDENTIFICATION

Label Elements



Signal Word

Warning

Hazard Statements

H335 - May cause respiratory irritation
H319 - Causes serious eye irritation
H315 - Causes skin irritation

Precautionary Statements - EU (§28, 1272/2008)

P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Other Hazards

No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | EC-No. | Weight % | CAS-No | 67/548/EEC Classification | CLP Classification - Regulation (EC) No 1272/2008 | REACH No. |
|--|-------------------|----------|------------|---------------------------|---|-----------|
| Ethanaminium, 2-hydroxy-N-(2-hydroxyethyl)-N,N-dimethyl-, chloride 38402-02-7 | EEC No. 253-913-3 | 99 | 38402-02-7 | Xi; R36/37/38 | STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) | - |

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

SECTION 4. FIRST AID MEASURES

Bis(2-hydroxyethyl)dimethylammonium chloride

Revision Date 15-Dec-2011

SECTION 4. FIRST AID MEASURES**Description of first aid measures**

| | |
|---------------------------|---|
| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention. |
| Skin Contact | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Obtain medical attention. |
| Ingestion | Clean mouth with water. Get medical attention. |
| Inhalation | Remove from exposure, lie down. Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Obtain medical attention. |
| Notes to Physician | Treat symptomatically |

SECTION 5. FIRE-FIGHTING MEASURES**Extinguishing media****Suitable Extinguishing Media**Water spray. Carbon dioxide (CO₂). Dry chemical. chemical foam.**Extinguishing media which must not be used for safety reasons**

No information available.

Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors

Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

Environmental precautions

Prevent further leakage or spillage if safe to do so

Methods and material for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Do not let this chemical enter the environment.

SECTION 7. HANDLING AND STORAGE**Precautions for Safe Handling**

Bis(2-hydroxyethyl)dimethylammonium chloride

Revision Date 15-Dec-2011

Avoid contact with skin and eyes. Do not breathe dust. Do not breathe vapors or spray mist. Do not ingest.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed.

Specific End Uses

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Biological limit values This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

Exposure controls

Engineering Measures Ensure adequate ventilation, especially in confined areas Ensure that eyewash stations and safety showers are close to the workstation location

Personal protective equipment

Eye Protection Goggles
Hand Protection Protective gloves
Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure
Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls No information available.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---------------------------------|---------------------------|
| Physical State | Powder, Solid |
| Appearance | White |
| odor | odorless |
| pH | No information available. |
| Vapor Pressure | No information available. |
| Vapor Density | No information available. |
| Boiling Point/Range | No information available. |
| Melting Point/Range | No information available. |
| Flash Point | No information available. |
| Autoignition Temperature | No information available. |
| Water Solubility | soluble |

Bis(2-hydroxyethyl)dimethylammonium chloride

Revision Date 15-Dec-2011

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-------------------|----------------|
| Molecular Formula | C6 H16 Cl N O2 |
| Molecular Weight | 169.65 |

SECTION 10. STABILITY AND REACTIVITY**Reactivity****Chemical Stability**

Stable under normal conditions.

Possibility of Hazardous Reactions

| | |
|---------------------------------|---------------------------|
| Hazardous Polymerization | No information available. |
| Hazardous Reactions . | No information available. |

Conditions to Avoid

Incompatible products.

Incompatible Materials

Strong oxidizing agents.

Hazardous Decomposition ProductsHydrogen chloride gas. Nitrogen oxides (NOx). Carbon monoxide (CO). Carbon dioxide (CO₂).**SECTION 11. TOXICOLOGICAL INFORMATION****Information on Toxicological Effects****Acute Toxicity**

| | |
|----------------------------|---|
| Product Information | No acute toxicity information is available for this product |
|----------------------------|---|

Component Information**Chronic Toxicity**

| | |
|------------------------|---|
| Carcinogenicity | There are no known carcinogenic chemicals in this product |
|------------------------|---|

| | |
|-----------------------------|---------------------------|
| Sensitization | No information available. |
| Mutagenic Effects | No information available |
| Reproductive Effects | No information available. |

Bis(2-hydroxyethyl)dimethylammonium chloride

Revision Date 15-Dec-2011

| | |
|--|--|
| Developmental Effects | No information available. |
| Target Organs | No information available. |
| Other Adverse Effects | The toxicological properties have not been fully investigated. |
| Endocrine Disruptor Information | None known |

SECTION 12. ECOLOGICAL INFORMATION**Toxicity****Ecotoxicity effects** Do not empty into drains**Persistence and degradability**

No information available

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

Results of PBT and vPvB assessment**Other adverse effects**

No information available

SECTION 13. DISPOSAL CONSIDERATIONS**Waste treatment methods****Waste from Residues / Unused Products** Dispose of in accordance with local regulations**Contaminated Packaging** Empty containers should be taken to local recyclers for disposal**SECTION 14. TRANSPORT INFORMATION****IMDG/IMO** Not regulated**ADR** Not regulated**IATA** Not regulated

Bis(2-hydroxyethyl)dimethylammonium chloride

Revision Date 15-Dec-2011

SECTION 14. TRANSPORT INFORMATION
SECTION 15. REGULATORY INFORMATION
Safety, health and environmental regulations/legislation specific for the substance or mixture
International Inventories

| Component | EINECS | ELINCS | NLP | TSCA | DSL | NDSL | PICCS | ENCS | CHINA | AICS | KECL |
|--|-----------|--------|-----|------|-----|------|-------|------|-------|------|------|
| Ethanaminium, 2-hydroxy-N-(2-hydroxyethyl)-N,N-dimethyl-, chloride | 253-913-3 | - | | X | X | - | - | - | X | - | - |

Legend
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

CHINA - China Inventory of Existing Chemical Substances

AICS - Inventory of Chemical Substances

KECL - Existing and Evaluated Chemical Substances

Chemical Safety Assessment
SECTION 16. OTHER INFORMATION
Full text of R-phrases referred to under sections 2 and 3

R36/37/38 - Irritating to eyes, respiratory system and skin

Revision Date 15-Dec-2011

Revision Summary Not applicable

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.



SAFETY DATA SHEET

Bis(2-hydroxyethyl)dimethylammonium chloride

Revision Date 15-Dec-2011

End of Safety Data Sheet