1. Identification

Product Name: TRISAMINOMETHANE HYDROCHLORIDE

Cat No.: AC228030000; AC228030010; AC228030050; AC228030051; AC228031000; AC228032500

CAS-No: 1185-53-1

Synonyms: Tromethane; 2-Amino-2-(hydroxymethyl)-1,3-propanediol, hydrochloride; TRIS; Tromethamine

Recommended Use: Laboratory chemicals.

Uses advised against: Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company
Fisher Scientific
112 Colonnade Road,
Ottawa, ON K2E 7L6,
Canada
Tel: 1-800-234-7437

Importer/Distributor
For information US call: 001-800-ACROS-01 / Europe call: +32 14 57 52 11
Emergency Telephone Number
US: 001-1-800-796-7100 / Europe: +32 14 57 52 99
CHEMTREC Tel. No.US: 001-800-424-9300 / Europe: 001-703-527-3887

Manufacturer
Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

2. Hazard(s) identification

Classification

WHMIS 2015 Classification: Not classified under the Hazardous Products Regulations (SOR/2015-17)

Based on available data, the classification criteria are not met

Label Elements
None required

Hazard Statements

Precautionary Statements

3. Composition/Information on Ingredients
### 4. First-aid measures

**General Advice**  
If symptoms persist, call a physician.

**Eye Contact**  
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

**Skin Contact**  
Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

**Inhalation**  
Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

**Ingestion**  
Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

**Most important symptoms/effects**  
None reasonably foreseeable.

**Notes to Physician**  
Treat symptomatically.

### 5. Fire-fighting measures

**Suitable Extinguishing Media**  

**Unsuitable Extinguishing Media**  
No information available

**Flash Point Method**  
No information available

**Autoignition Temperature**  
No information available

**Explosion Limits**  
Upper: No data available  
Lower: No data available

**Oxidizing Properties**  
Not oxidizing (according to A17 test)

**Sensitivity to Mechanical Impact**  
No information available

**Sensitivity to Static Discharge**  
No information available

**Specific Hazards Arising from the Chemical**  
Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

**Hazardous Combustion Products**  

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

### NFPA

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>2</td>
</tr>
<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Instability</td>
<td>1</td>
</tr>
<tr>
<td>Physical hazards</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### 6. Accidental release measures

**Personal Precautions**  
Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust.
7. Handling and storage

Handling
Avoid ingestion and inhalation. Ensure adequate ventilation. Wear personal protective equipment/face protection. Avoid dust formation. Do not get in eyes, on skin, or on clothing.

Storage.

8. Exposure controls / personal protection

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

Engineering Measures
Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.
Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source.

Personal protective equipment

Eye Protection
Goggles

Hand Protection
Protective gloves

<table>
<thead>
<tr>
<th>Glove material</th>
<th>Breakthrough time</th>
<th>Glove thickness</th>
<th>Glove comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrile rubber</td>
<td>See manufacturers</td>
<td>-</td>
<td>Splash protection only</td>
</tr>
<tr>
<td>Neoprene</td>
<td>recommendations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural rubber</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PVC</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

Respiratory Protection
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. 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.
To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

Recommended Filter type: Particulates filter conforming to EN 143

When RPE is used a face piece Fit Test should be conducted

Environmental exposure controls
No information available.

Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.
### 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>White</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight Characteristic</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No information available</td>
</tr>
<tr>
<td>pH</td>
<td>3.5-5.0 @ 25°C 1 % aq.sol (25°C)</td>
</tr>
<tr>
<td>Melting Point/Range</td>
<td>150 - 151 °C / 302 - 303.8 °F</td>
</tr>
<tr>
<td>Boiling Point/Range</td>
<td>225 °C / 437 °F</td>
</tr>
<tr>
<td>Flash Point</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability (solid,gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Density</td>
<td>1.28 g/cm³</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>No information available</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble</td>
</tr>
<tr>
<td>Partition coefficient; n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Molecular Formula</td>
<td>C₄H₁₁N O₃ . HCl</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>157.6</td>
</tr>
</tbody>
</table>

### 10. Stability and reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactive Hazard</td>
<td>None known, based on information available</td>
</tr>
<tr>
<td>Hygroscopic</td>
<td></td>
</tr>
<tr>
<td>Stability</td>
<td></td>
</tr>
<tr>
<td>Incompatible Products</td>
<td>Bases, Strong oxidizing agents</td>
</tr>
<tr>
<td>Incompatible Materials</td>
<td></td>
</tr>
<tr>
<td>Hazardous Decomposition Products</td>
<td>Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO₂), Hydrogen chloride gas</td>
</tr>
<tr>
<td>Hazardous Polymerization</td>
<td>No information available</td>
</tr>
<tr>
<td>Hazardous Reactions</td>
<td>None under normal processing.</td>
</tr>
</tbody>
</table>

### 11. Toxicological information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity</td>
<td>No acute toxicity information is available for this product</td>
</tr>
<tr>
<td>Component Information</td>
<td></td>
</tr>
<tr>
<td>Component</td>
<td>LD50 Oral</td>
</tr>
<tr>
<td>1,3-Propanediol, 2-amino-2-(hydroxymethyl)-hydrochloride</td>
<td>OECD 425 (Rat) LD50 &gt; 5000 mg/kg bw</td>
</tr>
<tr>
<td>Delayed and immediate effects as well as chronic effects from short and long-term exposure.</td>
<td></td>
</tr>
<tr>
<td>Irritation</td>
<td>Irritating to eyes, respiratory system and skin</td>
</tr>
</tbody>
</table>

Toxicologically Synergistic Products No information available
Sensitization
No information available

Carcinogenicity
The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>IARC</th>
<th>NTP</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride</td>
<td>1185-53-1</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

Mutagenic Effects
No information available

Reproductive Effects
No information available.

Developmental Effects
No information available.

Teratogenicity
No information available.

STOT - single exposure
None known

STOT - repeated exposure
None known

Aspiration hazard
No information available

Symptoms / effects, both acute and delayed
No information available

Endocrine Disruptor Information
No information available

Other Adverse Effects
The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity
Do not empty into drains.

<table>
<thead>
<tr>
<th>Component</th>
<th>Freshwater Algae</th>
<th>Freshwater Fish</th>
<th>Microtox</th>
<th>Water Flea</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride</td>
<td>Not listed</td>
<td>Not listed</td>
<td>OECD 209 EC50 &gt; 1000 mg/L (3h)</td>
<td>Daphnia Magna EC50 &gt;100 mg/L (48h)</td>
</tr>
</tbody>
</table>

Persistence and Degradability
Soluble in water. Persistence is unlikely based on information available.

Bioaccumulation/Accumulation
No information available.

Mobility
Will likely be mobile in the environment due to its water solubility.

<table>
<thead>
<tr>
<th>Component</th>
<th>log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride</td>
<td>-3.6</td>
</tr>
</tbody>
</table>

13. Disposal considerations

Waste Disposal Methods
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

<table>
<thead>
<tr>
<th>Agency</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT</td>
<td>Not regulated</td>
</tr>
<tr>
<td>TDG</td>
<td>Not regulated</td>
</tr>
<tr>
<td>IATA</td>
<td>Not regulated</td>
</tr>
<tr>
<td>IMDG/IMO</td>
<td>Not regulated</td>
</tr>
</tbody>
</table>

15. Regulatory information

International Inventories
Component | CAS-No  | DSL | NDSL | TSCA | TSCA Inventory notification - Active-Inactive | EINECS | ELINCS | NLP |
--- | --- | --- | --- | --- | --- | --- | --- | --- |
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride | 1185-53-1 | X | - | X | ACTIVE | 214-684-5 | - | - |

Legend:
X - Listed  '-' - Not Listed
KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
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
IECSC - Chinese Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
ENCS - Japanese Existing and New Chemical Substances
AICS - Australian Inventory of Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances

Canada

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and meets the requirements of the HPR (Paragraph 13(1)(a) of the Hazardous Products Act (HPA)).

Other International Regulations

Authorisation/Restrictions according to EU REACH

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

Component | CAS-No  | OECD HPV | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
--- | --- | --- | --- | --- | --- |
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride | 1185-53-1 | Not applicable | Not applicable | Not applicable | Not applicable |

--- | --- | --- | --- | --- | --- |
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride | 1185-53-1 | Not applicable | Not applicable | Not applicable | Not applicable |

16. Other information

Prepared By  Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Creation Date  26-September-2009
Revision Date  24-December-2021
Disclaimer
The information provided in 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text

End of SDS