1. Identification

Product Name 2,2-Bis(hydroxymethyl)-2,2',2'-nitrilotriethanol

Cat No. : AC163820000; AC163820025; AC163820050; AC163820250; AC163821000; AC163825000

CAS No 6976-37-0

Synonyms BIS-TRIS; Bis(2-hydroxyethyl)iminotris(hydroxymethyl)methane

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 Company Acros Organics
One Reagent Lane One Reagent Lane
Fair Lawn, NJ 07410 Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number
For information US call: 001-800-ACROS-01 / Europe call: +32 14 57 52 11
Emergency Number US:001-201-796-7100 / Europe: +32 14 57 52 99
CHEMTREC Tel. No.US:001-800-424-9300 / Europe:001-703-527-3887

2. Hazard(s) identification

Classification
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| Serious Eye Damage/Eye Irritation | Category 1 |

Label Elements

Signal Word Danger

Hazard Statements Causes serious eye damage
Precautionary Statements
Prevention
Wear protective gloves/protective clothing/eye protection/face protection
Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician
Hazards not otherwise classified (HNOC)
None identified

### 3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bis(2-hydroxyethyl)aminotris(hydroxymethyl)methane</td>
<td>6976-37-0</td>
<td>&gt;95</td>
</tr>
</tbody>
</table>

### 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 and effects**
None reasonably foreseeable. Causes severe eye damage.

**Notes to Physician**
Treat symptomatically

### 5. Fire-fighting measures

**Suitable Extinguishing Media**
Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam.

**Unsuitable Extinguishing Media**
No information available

<table>
<thead>
<tr>
<th>Flash Point Method -</th>
<th>No information available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autoignition Temperature</td>
<td>Not applicable</td>
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</tbody>
</table>

**Explosion Limits**

<table>
<thead>
<tr>
<th>Upper</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Lower</td>
<td>No data available</td>
</tr>
</tbody>
</table>


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>Health</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
<td>0</td>
<td>N/A</td>
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</tbody>
</table>

6. Accidental release measures

Personal Precautions
Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation.

Environmental Precautions
Should not be released into the environment.

Methods for Containment and Clean Up
Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal.

7. Handling and storage

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

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.

Personal Protective Equipment

Eye/face Protection
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA’s eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

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.

9. Physical and chemical properties

Physical State Powder Solid

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2,2-Bis(hydroxymethyl)-2,2’,2’-nitrilotriethanol

Appearance: White
Odor: Odorless
Odor Threshold: No information available
pH: 8.8-9.6 in 1% aq. solution
Melting Point/Range: 103 - 104 °C / 217.4 - 219.2 °F
Boiling Point/Range: No information available
Flash Point: No information available
Flammability (solid,gas): Not applicable
Flammability or explosive limits: No information available
Upper: No data available
Lower: No data available
Vapor Pressure: negligible
Vapor Density: Not applicable
Specific Gravity: Soluble in water
Partition coefficient; n-octanol/water: No data available
Autoignition Temperature: Not applicable
Decomposition Temperature: No information available
Viscosity: Not applicable
Molecular Formula: C8 H19 N O5
Molecular Weight: 209.24

10. Stability and reactivity

Reactive Hazard: None known, based on information available
Stability: Stable under normal conditions.
Conditions to Avoid: Avoid dust formation. Excess heat.
Incompatible Materials: Strong oxidizing agents, Strong acids
Hazardous Decomposition Products: Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NOx), Ammonia
Hazardous Polymerization: Hazardous polymerization does not occur.
Hazardous Reactions: None under normal processing.

11. Toxicological information

Acute Toxicity: No acute toxicity information is available for this product
Component Information: No information available
Toxicologically Synergistic Products: No information available
Delayed and immediate effects as well as chronic effects from short and long-term exposure:
Irritation: Irritating to eyes, respiratory system and skin
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>
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<td>6976-37-0</td>
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<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
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</table>

Mutagenic Effects: No information available
2,2-Bis(hydroxymethyl)-2,2',2'-nitrilotriethanol

Revision Date 28-Jun-2022

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.

Persistence and Degradability  Persistence is unlikely
Bioaccumulation/ Accumulation  No information available.
Mobility  Will likely be mobile in the environment due to its water solubility.

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<th>Component</th>
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<tbody>
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</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

DOT  Not regulated
TDG  Not regulated
IATA  Not regulated
IMDG/IMO  Not regulated

15. Regulatory information

United States of America Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>TSCA</th>
<th>TSCA Inventory notification - Active-Inactive</th>
<th>TSCA - EPA Regulatory Flags</th>
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<tbody>
<tr>
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<td>X</td>
<td>ACTIVE</td>
<td>-</td>
</tr>
</tbody>
</table>

Legend:
TSCA  US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)
X - Listed
'-' - Not Listed

TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)  Not applicable
TSCA 12(b) - Notices of Export  Not applicable
International Inventories
China, X = listed, Australia, U.S.A. (TSCA), Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Australia (AICS), Korea (KECL), China (IECSC), Japan (ENCS), Philippines (PICCS), Taiwan (TCSI), Japan (ISHL), New Zealand (NZIoC), Japan (ISHL).

<table>
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<th>Component</th>
<th>CAS No</th>
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KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

U.S. Federal Regulations
SARA 313
Not applicable

SARA 311/312 Hazard Categories
See section 2 for more information

CWA (Clean Water Act)
Not applicable

Clean Air Act
Not applicable

OSHA - Occupational Safety and Health Administration
Not applicable

CERCLA
Not applicable

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations
Not applicable

U.S. Department of Transportation
Reportable Quantity (RQ): N
DOT Marine Pollutant: N
DOT Severe Marine Pollutant: N

U.S. Department of Homeland Security
This product does not contain any DHS chemicals.

Other International Regulations
Mexico - Grade
No information available

Authorisation/Restrictions according to EU REACH
Not applicable

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

<table>
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<th>Component</th>
<th>CAS No</th>
<th>OECD HPV</th>
<th>Persistent Organic Pollutant</th>
<th>Ozone Depletion Potential</th>
<th>Restriction of Hazardous Substances (RoHS)</th>
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</tbody>
</table>

### 16. Other information

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

**Creation Date**
05-Mar-2010

**Revision Date**
28-Jun-2022

**Print Date**
28-Jun-2022

**Revision Summary**
This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

**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