Section 1 - Product and Company Information

Product Name: TRIS-(HYDROXYMETHYL)AMINOMETHANE HCL BUFFER SUBST PH 8.0
Product Number: 93378
Brand: Sigma Chemical
Company: Sigma-Aldrich
Street Address: 3020 Spruce Street
City, State, Zip, Country: SAINT LOUIS, MO 63103 US
Technical Phone: 800-325-5832
Fax: 800-325-5052
Emergency Phone: 314-776-6555

Section 2 - Composition/Information on Ingredient

<table>
<thead>
<tr>
<th>Substance Name</th>
<th>CAS #</th>
<th>SARA 313</th>
<th>EC No</th>
<th>Annex I Index Number</th>
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<tr>
<td>TRIS-(HYDROXYMETHYL)AMINOMETHANE HCL BUFFER SUBST PH 8.0</td>
<td>None</td>
<td>No</td>
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</table>

Formula: C4H11NO3·HCl

Section 3 - Hazards Identification

Emergency Overview
Inhalation: Irritating to eyes, respiratory system and skin.

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Oral Exposure
If swallowed, wash out mouth with water provided person is conscious. Call a physician.

Inhalation Exposure
If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

Dermal Exposure
In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

Eye Exposure
In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

Autoignition Temp: N/A

Extinguishing Media
Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

Firefighting
Protective Equipment
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Hazard(s)
Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s)
Wear respiratory, chemical safety goggles, rubber boots, and heavy rubber gloves.

Methods for Cleaning Up
Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 8 - Exposure Controls / PPE

Engineering Controls
Safety shower and eyewash. Mechanical exhaust required.

Personal Protective Equipment
Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator.

Hand: Compatible chemical-resistant gloves.
Eye: Chemical safety goggles.
Section 10 - Stability and Reactivity

Stability
Materials to Avoid
Bases, Oxidizing agents

Hazardous Decomposition Products
Carbon monoxide, carbon dioxide, and nitrogen oxides

Section 11 - Toxicological Information

Route of Exposure
Inhalation
May be harmful by inhalation, ingestion, or skin absorption. Causes eye and skin irritation.

Section 12 - Ecological Information
No data available

Section 13 - Disposal Considerations
Appropriate Method of Disposal of Substance or Preparation
The material should be ignited in the presence of sodium carbonate and slaked lime (calcium hydroxide). The substance should be allowed to cool, and then with the dry caustics wrapped in paper and burned in a chemical incinerator equipped with an observer all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT
Proper Shipping Name: None
Non-Hazardous for Transport: This substance is considered to be nonhazardous for transport.

IATA
Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information

EU Additional Classification
Symbol of Danger: Xi
Indication of Danger
Inflammable
Risk Statements: R: 23/36
Inhalation: Initiating to eyes, respiratory system and skin.
Safetv Statements: S: 26, 36
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

US Classification and Label Text
Indication of Danger
Inflammable
Risk Statements: Initiating to eyes, respiratory system and skin.
Safetv Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

United States Regulatory Information
SARA Listed: No

Canada Regulatory Information
WHMIS Classification
This product has been classified in accordance with the hazard criteria of the CPR. and the MSDS contains all the information required by the CPR.
DSL: No
HDSL: No

Section 16 - Other Information

Disclaimer
For R&D use only. Not for drug, household or other uses.

Warranty
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2008 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.