

1 Identification

Product Name: TRIS Hydrochloride, Special Order Product

Catalog Number: T042

Company: Caisson Laboratories

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Recommended Use: For research and laboratory use only.

Restrictions On Use: This product is intended for research and laboratory use only. This product is not to be used as human or animal therapeutics, cosmetics, agricultural or pesticidal products, food additives, or as household chemicals.

2 Hazard(s) Identification

Classification of the Substance or Mixture

GHS Classification:

GHS Label elements, including precautionary statements

Signal Word:

Hazard Statements

Precautionary Statements

Pictograms:

3 Composition / Information on Ingredients

Synonyms: Trizma hydrochloride, TRIS HCl, Tris(hydroxymethyl)aminomethane hydrochloride

Formula: $C_4H_{11}NO_3 \cdot HCl$

Molecular Weight (g/mol): 157.6

CAS Number: 1185-53-1

EC Number: 214-684-5

4 First-Aid Measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Route of Exposure

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water.

In case of skin contact: Wash off with soap and plenty of water.

In case of eye contact: Flush eyes with water as a precaution.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Most important symptoms and effects, both acute and delayed: The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Recommendation for immediate medical care and special treatment needed: No data available

5 Fire-Fighting Measures

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment and precautions for fire-fighters: Wear self-contained breathing apparatus for firefighting if necessary

Special hazards arising from the substance or mixture: No data available

Additional Information: No data available

6 Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: Avoid dust formation. Avoid breathing vapors, mist or gas.

For personal protection see section 8.

Environmental precautions: No special environmental precautions required.

Methods and material for containment and cleanup: Sweep up and shovel. Keep in suitable, closed containers for disposal.

7 Handling and Storage

Precautions for safe handling: Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

Conditions for safe storage: Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: 15 to 30°C

Incompatibilities: Bases, Oxidizing agents

8 Exposure Controls / Personal Protection

OSHA Permissible Exposure Limits (PELs):

ACGIH Threshold Limit Values (TLVs):

Engineering controls: General industrial hygiene practice.

Personal Protective Equipment (PPE)

Eye/face protection: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique to avoid skin contact with this product.

Respiratory protection: Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Body protection: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

9 Physical and Chemical Properties

Appearance: White Crystalline Powder

pH: 3.7-4.7

Solubility: Soluble in water

Specific Gravity: No data available

Melting Range: 150 - 152 °C

Odor: No data available

Odor Threshold: No data available

Viscosity: No data available

Relative Density: No data available

Evaporation Rate: No data available

Initial Boiling Point and Boiling Range: No data available

Flash Point: No data available

Flammability (Solid, gas): No data available

Flammability Upper/Lower Limits: No data available

Partition Coefficient: n-octanol/water: No data available

Vapor Density: No data available

Vapor Pressure: No data available

Auto-ignition Temperature: No data available

Decomposition Temperature: No data available

10 Stability and Reactivity

Reactivity: No data available

Chemical stability: Stable under recommended storage conditions.

Possibilities of hazardous reactions: No data available

Conditions to avoid: Exposure to moisture

Incompatible materials: Bases, Oxidizing agents

Hazardous decomposition products: Other decomposition products - No data available

In the event of fire: see section 5

11 Toxicological Information

Toxicity: No data available

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Mild eye irritation

Carcinogenicity

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: No data available

Symptoms associated with overexposure: No data available

Specific target organ toxicity - single exposure: No data available

Specific target organ toxicity - repeated exposure: No data available

Target Organs: No data available

Medical conditions aggravated by exposure: No data available

Routes of entry: No data available

NIOSH/RTECS: Not available

12 Ecological Information

Toxicity: Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia (water flea) - > 100 mg/l - 48 h

Toxicity to algae

EC50 - other microorganisms - > 1,000 mg/l - 3 h

Persistence and degradability: Readily biodegradable, according to appropriate OECD test.

Bioaccumulative potential: No data available

Mobility in soil: No data available

Results of PBT and vPvB: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: No data available

13 Disposal Considerations

Disposal of Product: Offer surplus and non-recyclable solutions to a licensed disposal company.

Disposal of Packaging: Dispose of as unused product.

14 Transport Information

DOT (US)

Proper Shipping Name: Tris Hydrochloride

UN/NA number: Class: Packaging group: Hazard Label: Not dangerous goods

Reportable Quantity (RQ):

Poison Inhalation Hazard:

IMDG

Proper Shipping Name: Tris Hydrochloride

UN number: Class: Packaging group: Hazard Label: Not dangerous goods

IATA

Proper Shipping Name: Tris Hydrochloride

UN Number: Class: Packaging group: Hazard Label: Not dangerous goods

15 Regulatory Information

TSCA: Listed

SARA Title III

Section 302 (EHS) Ingredients: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section 313 Ingredients: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313

Section 304 (EHS/CERCLA) Ingredients:

Section 311/312 Hazard: No SARA Hazards

16 Other Information

HMIS Rating

Health hazard: 0

Chronic health hazard: *

Flammability: 0

Physical hazard: 0

NFPA Rating

Health hazard: 0

Fire hazard: 0

Reactivity: 0

Special Hazard:



Safety Data Sheet

Further information: All chemicals may pose unknown hazards and should be used with caution. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Caisson Laboratories, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.

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