

SAFETY DATA SHEET



Conforms to regulation (EC) no. EU 453/2010

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

1.1 Product Identifier

Product Name: Tris-HCl, pH 7.2

Product Number: EC-922

1.2 Relevant Identified Uses of the Substance/Mixture and Uses Advised Against

Investigational research by professional users

1.3 Details of the Supplier of the Safety Data Sheet

Manufacturer

National Diagnostics
305 Patton Drive
Atlanta, GA 30036
(404) 699-2121
(800) 526-3867
info@nationaldiagnostics.com

1.4 Emergency Telephone Number

ChemTel Inc.

Contract number MIS8894340
1-800 255-3924 (United States, Canada, Puerto Rico & US Virgin Islands)
01-800-099-0731 (Mexico)
400-120-0751 (China)
000-800-100-4086 (India)
1-300-954-583 (Australia)
0-800-591-6042 (Brazil)
+1-813-255-3924 (All other regions)

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

Not a hazardous substance or mixture according to regulation (EC) No. 1272/2008.

2.2 Label Elements

This product has no labeling elements associated with EC directives or respective national laws.

2.3 Other Hazards

None found.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Chemical Names/Description

Tris hydrochloride solution

Component List

| Component | % Comp. | CAS # | EC # | 1278/2008 Classification |
|--------------------|---------|-----------|-----------|-----------------------------|
| Tris Hydrochloride | 10 - 20 | 1185-53-1 | 214-684-5 | H315, H319, H335 |

SECTION 4 - FIRST AID MEASURES

4.1 Description of First Aid Measures

Inhalation

If breathing, move person to fresh air. If not breathing give artificial respiration. Consult a physician.

Ingestion

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Skin

Wash off with soap and plenty of water. Consult a physician.

Eyes

Flush eyes with water as a precaution.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed

Inhalation

Symptoms may include coughing and shortness of breath.

Ingestion

Symptoms may include irritation and reddening to the mucous membranes of the mouth, esophagus, and gastrointestinal tract.

Skin

Symptoms may include irritation with redness and pain.

Eyes

Symptoms may include irritation, redness, pain, and corneal damage.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

Unknown/not applicable

SECTION 5 - FIRE FIGHTING MEASURES**5.1 Extinguishing media**

Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special Hazards Arising from the Substance/Mixture**Hazardous Combustion Products**

N.A.

Hazardous Decomposition Products

No data available.

Hazardous Polymerization

No data found.

5.3 Advice for Firefighters

Gloves, approved eyewear and respiratory controls if needed.

5.4 Further Information

No data available.

SECTION 6 - ACCIDENTAL RELEASE MEASURES**6.1 Personal Precautions**

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

6.2 Environmental Precautions

Prevent discharge into the environment. Dike spills and stop leakage where practical. Do not allow material to enter drains.

6.3 Methods and Materials for Containment and Cleaning Up

Contain and clean up spill immediately, prevent from entering floor drains. Contain liquids using absorbents. Shovel all spill materials into disposal drum. Scrub spill area with detergent, flush with copious amounts of water.

6.4 References to Other Sections

For disposal information, see Section 13. For protective clothing and equipment, see Section 8.

SECTION 7 - HANDLING AND STORAGE**7.1 Precautions for Safe Handling**

No information available.

7.2 Conditions for Safe Storage (including any incompatibles)

Store tightly capped in a dark area.

Incompatibles

Bases, oxidizing agents, acids, aldehydes, copper, brass, and aluminum.

7.3 Specific End Uses

Investigational research by professional users

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PRECAUTIONS**8.1 Control Parameters**

ACGIH Threshold Limit Value (TLV): None established

OSHA Permissible Exposure Limit (PEL): None established

8.2 Exposure Controls**Engineering Controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Respiratory Protection

When appropriate, use a full-face respirator with multiple purpose combination or type ABEK respirator cartridges as a backup to engineering controls. If respirator is sole means of protection use a full-face supplied air respirator.

Eye Protection

Safety glasses with side shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH or EN166.

Skin Protection

Handle with gloves. Inspect gloves prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical & Chemical Properties

| | | | |
|--|---------------------------|---|----------|
| a. Appearance | Clear, colorless solution | b. Odor | None |
| c. Odor Threshold | N.A. | d. pH | 7.2 |
| e. Melting/Freezing Point (°C) | 0 | f. Boiling point (°C) | 101 |
| g. Flash Point (°C) | N.A. | h. Evaporation Rate | Water |
| i. Flammability | N.A. | j. Upper/Lower Flammability or Explosive Limits | N.A. |
| k. Vapor Pressure | 17 | l. Vapor Density (Air = 1) | 0.62 |
| m. Relative Density | 1.01 | n. Water Solubility | Miscible |
| o. Partition Coefficient n-octanol/water | | p. Autoignition Temperature (°C) | N.A. |
| q. Decomposition Temperature (°C) | N.A. | r. Viscosity | N.A. |
| s. Explosive Properties | N.A. | t. Oxidizing Properties | N.A. |

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity

N.A.

10.2 Chemical Stability

Stable

10.3 Possibility of Hazardous Reactions

No data found.

10.4 Conditions to Avoid

No data available.

10.5 Incompatible Materials

Bases, oxidizing agents, acids, aldehydes, copper, brass, and aluminum.

10.6 Hazardous Decomposition Products

No data available.

SECTION 11 - TOXICOLOGICAL INFORMATION

Product LD50 Values

Oral Rat LD50 (mg/kg)

N.A.

Dermal Rabbit LD50 (mg/kg)

N.A.

Component Cancer List Status

| | NTP Carcinogen | | IARC Category |
|--------------------|----------------|-------------|---------------|
| | Known | Anticipated | |
| Tris Hydrochloride | No | No | None |

Potential Health Effects

Inhalation

May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.

Ingestion

May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns. The toxicological properties of this substance have not been fully investigated.

Skin

Causes skin irritation. Causes redness and pain.

Eyes

Causes eye irritation. Causes redness and pain.

Carcinogenicity

Not listed by OSHA, ACGIH, NIOSH, NTP or IARC as a known or anticipated carcinogen.

Mutagenicity

No information available.

Reproductive Toxicity

No information available.

Teratogenic Effects

No information available.

Routes of Entry

Inhalation, ingestion or skin contact.

Target Organ Statement

No information available

SECTION 12 - ECOLOGICAL INFORMATION**12.1 Toxicity**

| | Vertebrates | Invertebrates | Algae | Microorganisms |
|--|-------------|---------------|---------|----------------|
| Aquatic Toxicity (ppm unless otherwise noted) | No data | No data | No data | No data |
| | Birds | Arthropods | Plants | Microorganisms |
| Terrestrial Environment Toxicity (ppm unless otherwise noted) | No data | No data | No data | No data |

12.2 Persistence and Degradability

No data

12.3 Bioaccumulative Potential

No data

12.4 Mobility in Soil

No data

12.5 Results of PBT and vPvB Assessment

No data

12.6 Other Adverse Effects

None

SECTION 13 - DISPOSAL CONSIDERATIONS**13.1 Waste Treatment Methods**

Offer surplus or non-recyclable product to licensed disposal company. Disposal is subject to user compliance with applicable law and product characteristics at time of disposal. Dispose of packaging as product.

SECTION 14 - TRANSPORT INFORMATION

| | ADR/RID | IATA | IMO | DOT |
|----------------------------|---------|------|------|------|
| 14.1 UN Number | N.A. | N.A. | N.A. | N.A. |
| 14.2 Shipping Name | N.A. | N.A. | N.A. | N.A. |
| 14.3 Hazard Class | N.A. | N.A. | N.A. | N.A. |
| 14.4 Packing Group | N.A. | N.A. | N.A. | N.A. |
| 14.5 Environmental Hazards | N.A. | N.A. | N.A. | N.A. |
| 14.6 Special Precautions | N.A. | N.A. | N.A. | N.A. |

SECTION 15 - REGULATORY INFORMATION**15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance/Mixture United States**

TSCA Regulatory Statement

All intentional ingredients are listed on the TSCA Inventory.

SARA 311/312 Hazard Categories

| Component | Fire | Pressure | Reactivity | Acute | Chronic |
|--------------------|-------------|-----------------|-------------------|--------------|----------------|
| Tris Hydrochloride | No | No | No | Yes | No |

Europe

EEC Regulatory

All intentional ingredients are listed on the European EINECS Inventory.

SECTION 16 - OTHER INFORMATION

Revisional Updates

4/26/2019 - Updated Section 1.4

5/29/2015 - Updated Sections 2.1 and 3.2

4/16/2013 - Released Version 1.0

NFPA Codes

Health 0 Flammability 0 Reactivity 0

Dangers

Tris Hydrochloride

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H335 - May cause respiratory irritation.

MANUFACTURER DISCLAIMER: The information given herein is offered in good faith as accurate, but without guarantee. Conditions of the use and suitability of the product for particular uses are beyond our control. All risks of use of the product are therefore assumed by the user. Nothing is intended as a recommendation for uses which infringe valid patents or as extending license under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.