

# 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 7.4

Product Number: EC-923

### 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   | 7.4      |
| 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<br>(ppm unless otherwise noted)                 | No data     | No data       | No data | No data        |
|  | Birds       | Arthropods    | Plants  | Microorganisms |
| Terrestrial Environment Toxicity<br>(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**

| <b>Component</b>   | <b>Fire</b> | <b>Pressure</b> | <b>Reactivity</b> | <b>Acute</b> | <b>Chronic</b> |
|--------------------|-------------|-----------------|-------------------|--------------|----------------|
| 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.