

Printing date 06/18/2019

Reviewed on 06/18/2019

**1 Identification**

- **Product identifier**
- **Trade name:** Tris Hydrochloride
- **Article number:** 103130
- **CAS Number:**  
1185-53-1
- **EC number:**  
214-684-5
- **Molecular Formula** C<sub>4</sub>H<sub>11</sub>NO<sub>3</sub> · HCl
- **Molecular Weight** 157.6
- **Application of the substance / the mixture** For Research Use Only
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
MP Biomedicals, LLC  
29525 Fountain Parkway  
Solon, OH 44139  
United States  
www.mpbio.com
- **Information department:** Quality Control Department
- **Emergency telephone number:** CHEMTREC: 1-800-424-9300 (1-703-527-3887)

**2 Hazard(s) identification**

- **Classification of the substance or mixture**  
The substance is not classified, according to the Globally Harmonized System (GHS).

- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**3 Composition/information on ingredients**

- **Chemical characterization:** Substances
- **CAS No. Description**  
1185-53-1 Tris Hydrochloride

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- **Identification number(s)**
- **EC number:** 214-684-5

## 4 First-aid measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Flush eyes with running water as a precaution.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.  
For personal protection see section 8.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· <b>PAC-1:</b>	
	12 mg/m <sup>3</sup>
· <b>PAC-2:</b>	
	130 mg/m <sup>3</sup>
· <b>PAC-3:</b>	
	790 mg/m <sup>3</sup>

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special measures required.

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- **Information about protection against explosions and fires:** No special requirements.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:** 15-30°C
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Further information about storage conditions:**
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see Section 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not required.
- **Protection of hands:**  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Not required.

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

<b>Form:</b>	Crystalline powder
<b>Color:</b>	White
<b>Odor:</b>	Indeterminate
<b>Odor threshold:</b>	Not determined.
- **pH-value:** Not applicable.
- **Change in condition**

<b>Boiling point/Boiling range:</b>	Undetermined.
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- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Product is not flammable.
- **Decomposition temperature:** Not determined.

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· <b>Auto igniting:</b>	<i>Not determined.</i>
· <b>Danger of explosion:</b>	<i>See section 10</i>
· <b>Explosion limits:</b>	
<b>Lower:</b>	<i>Not Applicable</i>
<b>Upper:</b>	<i>Not Applicable</i>
· <b>Vapor pressure:</b>	<i>Not applicable.</i>
· <b>Density:</b>	<i>Not Applicable</i>
· <b>Relative density</b>	<i>Not determined.</i>
· <b>Vapor density</b>	<i>Not applicable.</i>
· <b>Evaporation rate</b>	<i>Not applicable.</i>
· <b>Solubility in / Miscibility with</b>	<i>Not Determined</i>
· <b>Water:</b>	<i>Easily soluble.</i>
· <b>Partition coefficient (n-octanol/water):</b>	<i>Not determined.</i>
· <b>Viscosity:</b>	
<b>Dynamic:</b>	<i>Not applicable.</i>
<b>Kinematic:</b>	<i>Not applicable.</i>
<b>VOC content:</b>	<i>0.00 %</i>
<b>Solids content:</b>	<i>100.0 %</i>
· <b>Other information</b>	<i>No further relevant information available.</i>

## 10 Stability and reactivity

- **Reactivity** *No further relevant information available.*
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **Possibility of hazardous reactions** *No dangerous reactions known.*
- **Conditions to avoid**  
*No further relevant information available.*  
*Avoid contact with acids. Contact liberates a toxic gas.*
- **Incompatible materials:** *No further relevant information available.*
- **Hazardous decomposition products:** *No dangerous decomposition products known.*

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** *Based on available data, the classification criteria are not met.*
- **Primary irritant effect:**
- **on the skin:** *No irritant effect.*
- **on the eye:** *Irritant and potentially harmful*
- **Sensitization:** *No sensitizing effects known.*
- **Additional toxicological information:**  
*When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.*  
*The substance is not subject to classification.*

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- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

Substance is not listed.

- **NTP (National Toxicology Program)**

Substance is not listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

## 12 Ecological information

- **Toxicity**

- **Aquatic toxicity:** No further relevant information available.

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Water hazard class 1 (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

Can not be disposed of together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packagings:**

- **Recommendation:** Discard must be made according to official regulations.

- **Recommended cleansing agent:** Water, if necessary with cleaning agents.

## 14 Transport information

- **UN-Number**

- **DOT, ADR, IMDG, IATA** Not regulated

- **UN proper shipping name**

- **DOT, ADR, IMDG, IATA** Not regulated

- **Transport hazard class(es)**

- **DOT, ADR, IMDG, IATA**

- **Class** Not regulated

- **Packing group**

- **DOT, ADR, IMDG, IATA** Not regulated

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- |  |                 |
|--|-----------------|
| <b>· Environmental hazards:</b>  | Not applicable. |
| <b>· Special precautions for user</b>  | Not applicable. |
| <b>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |
| <b>· UN "Model Regulation":</b>  | Not regulated   |

## 15 Regulatory information

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

- |  |                          |
|--|--------------------------|
| <b>· Section 355 (extremely hazardous substances):</b> | Substance is not listed. |
|--|--------------------------|

- |  |                          |
|--|--------------------------|
| <b>· Section 313 (Specific toxic chemical listings):</b> | Substance is not listed. |
|--|--------------------------|

- |   |        |
|---|--------|
| <b>· TSCA (Toxic Substances Control Act):</b> | ACTIVE |
|---|--------|

- |                                   |                          |
|-----------------------------------|--------------------------|
| <b>· Hazardous Air Pollutants</b> | Substance is not listed. |
|-----------------------------------|--------------------------|

- **Proposition 65**

- |   |                          |
|---|--------------------------|
| <b>· Chemicals known to cause cancer:</b> | Substance is not listed. |
|---|--------------------------|

- |  |                          |
|--|--------------------------|
| <b>· Chemicals known to cause reproductive toxicity for females:</b> | Substance is not listed. |
|--|--------------------------|

- |  |                          |
|--|--------------------------|
| <b>· Chemicals known to cause reproductive toxicity for males:</b> | Substance is not listed. |
|--|--------------------------|

- |   |                          |
|---|--------------------------|
| <b>· Chemicals known to cause developmental toxicity:</b> | Substance is not listed. |
|---|--------------------------|

- **Carcinogenic categories**

- |  |                          |
|--|--------------------------|
| <b>· EPA (Environmental Protection Agency)</b> | Substance is not listed. |
|--|--------------------------|

- |   |                          |
|---|--------------------------|
| <b>· TLV (Threshold Limit Value established by ACGIH)</b> | Substance is not listed. |
|---|--------------------------|

- |   |                          |
|---|--------------------------|
| <b>· NIOSH-Ca (National Institute for Occupational Safety and Health)</b> | Substance is not listed. |
|---|--------------------------|

- **GHS label elements** Void

- **Hazard pictograms** Void

- **Signal word** Void

- **Hazard statements** Void

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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## 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Department issuing SDS:** Quality Control Dept.
- **Date of preparation / last revision** 06/18/2019 / -
- **Abbreviations and acronyms:**

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*VOC: Volatile Organic Compounds (USA, EU)*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*NIOSH: National Institute for Occupational Safety*

*OSHA: Occupational Safety & Health*

*TLV: Threshold Limit Value*

*PEL: Permissible Exposure Limit*

*REL: Recommended Exposure Limit*

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