BIOSPECTRA

Safety Data Sheet
Tris Hydrochloride

Section 1 - Chemical Product and Company Identification

1.1 Product Identifiers

Product Name: Tris Hydrochloride
Catalog Numbers: TH7202, TH7201, TH5220, TH5201, TH4220,TH3220,TH3201
CAS #: 1185-53-1
EC#: 214-684-5
RTECS#: NA

1.2 Recommended Use of the Chemical and restrictions of Use

Chemical manufacturing

1.3 Supplier Details

BioSpectra, Inc.
100 Majestic Way
Bangor, Pa 18013
610.599.3400

1.4 Emergency Numbers

US & Canada: 1-800-424-9300
Outside the US & Canada: +1 703-527-3887

Section 2 – Hazard Identification

2.1 Classification of Substance or Mixture

Not a hazardous substance or mixture

2.2 GHS Label Elements Including Precautionary Statements

Not a hazardous substance or mixture

2.3 Hazards not Classified or not Covered by the GHS

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).

Section 3 – Composition, Information on Ingredients

Component	Classification	Concentration
Tris (hydroxymethyl)aminomethane hydrochloride	NA	>99%

Synonyms: 2-Amino-2-(Hydroxymethyl)-1,3-Propanediol Hydrochloride; Tris (Hydroxymethyl) Aminomethane Hydrochloride
Molecular formula: $NH_2C(CH_2OH)_3 \cdot HCl$
Molecular weight: 157.60 g/mol

Section 4 – First Aid Measures

4.1 Description of necessary first aid measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid immediately.
Skin: Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.
Ingestion: DO NOT induce vomiting unless instructed to do so by a medical professional. Never give anything by mouth to an unconscious person. Get medical aid immediately.
Inhalation: Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
Notes to Physician: Treat symptomatically and supportively.

4.2 Most Important symptoms/effects, acute and delayed

Refer to Section 2.2 for Precautionary Statements if any are applicable

4.3 Indication of Immediate Medical Attention and Special Treatment

No information available

Section 5 - Firefighting Measures

5.1 Extinguishing Media

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

5.2 Specific Hazards Associated with this Chemical

No information available

5.3 Special Equipment/Precautions for Firefighters

May be combustible at high temperatures. As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source. In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Explosion will appear as fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

5.4 Other information

None available

Section 6 - Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Avoid dust formation. Avoid breathing vapours, mist or gas. Use proper personal protective equipment as indicated in Section 8.

6.2 Environmental Precautions

Do not allow to enter drains

6.3 Methods and Materials for Containment and Cleaning Up

Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty conditions.

6.4 Other information

None available

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Wash thoroughly after handling. Use with adequate ventilation.

7.2 Conditions for Storage Including any Incompatibilities

Store in a cool, dry, well-ventilated area away from incompatible substances.

7.3 Other information

Hygroscopic.

Section 8 - Exposure Controls, Personal Protection

8.1 Control parameters

Chemical does not contain any substances with occupational exposure limits

8.2 Engineering controls

Use adequate ventilation to keep airborne concentrations low

8.3 Personal protective equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety Goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure. Wear impervious gloves: Nitrile rubber with layer thickness 0.11mm.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Where protection from nuisance levels of dusts are desired, use type N95

(US) or type P1 (EN 143) dust masks. A respiratory protection program that meets OSHA's 29 CFR '1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Section 9 - Physical and Chemical Properties

Physical State: Solid	**Freezing/Melting Point:** 150-152 ° C
Appearance: White/Crystal	**Boiling Point:** N/A
Odor: N/A	**Decomposition Temperature:** N/A
pH: 3.5-5.5 (0.5M)	**Specific Gravity/Density:** N/A
Vapor Pressure: N/A	**Solubility:** 101 g/100 mL
Vapor Density: N/A	**Molecular Formula:** $NH_2C(CH_2OH)_3 \cdot HCl$
Viscosity: N/A	**Molecular Weight:** 157.60 g/mol

Section 10 - Stability and Reactivity

10.1 Chemical Stability

Stable under normal temperatures and pressures.

10.2 Conditions to Avoid

Incompatible materials.

10.3 Incompatibilities with Other Materials

Bases, oxidizing agents

10.4 Hazardous Decomposition Products

Not available

10.5 Hazardous Polymerization

Will not occur.

Section 11 - Toxicological Information

11.1 Toxicological effects

No information available

Carcinogenicity:

Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology: No data available.

Teratogenicity: No data available.

Reproductive Effects: No data available.

Neurotoxicity: No data available.

Mutagenicity: No data available.

Other Studies: No data available.

11.2 Additional information

RTECS #: NA

To the best of our knowledge the associated physical, chemical and toxicological properties of this chemical have not undergone thorough investigation, all known information is contained in this SDS.

Section 12 - Ecological Information

12.1 Ecotoxicity

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia - > 100 mg/l - 48 h

Toxicity to algae EC50 – other microorganisms - 1000 mg/l 3 h

12.2 Persistence and degradability

Biodegradability Result: - Readily biodegradable according to appropriate OECD test

12.3 Bioaccumulative Potential

No information available

12.4 Mobility in Soil

No information available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other Adverse Effects

No information available

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

Regulations	US DOT	IATA	IMDG
Shipping Name	Not Dangerous Goods	Not Dangerous Goods	Not Dangerous Goods
Hazard Class			
UN Number			
Packing Group			

Section 15- Regulatory Information

15.1 EHS Chemical Specific Regulations

SARA

Section 302 (RQ): None of the chemicals in this material have an RQ.

Section 302 (TPQ): None of the chemicals in this product have a TPQ.

Section 313: No chemicals are reportable under Section 313.

SARA 311/312 Hazards: No SARA Hazards

STATE:

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Tris (hydroxymethyl) aminomethane HCl CAS# 1185-53-1

New Jersey Right To Know Components

Tris (hydroxymethyl) aminomethane HCl CAS# 1185-53-1

California Prop. 65 Components

No Significant Risk Level: None of the chemicals in this product are listed.

Section 16 - Additional Information

16.1 Hazard Ratings

HMIS Rating

Health hazard: 0

Flammability: 0

Physical Hazard: 0

NFPA Rating

Health hazard: 0

Fire Hazard: 0

Reactivity Hazard: 0