



## MATERIAL SAFETY DATA SHEET

[www.britisscientific.com](http://www.britisscientific.com)

Issue Date:

### 1- Chemical Product Information and Company Identification.

**Product Name:** : D-(-)-Threonine reference standard, Anstan<sup>®</sup>.  
**Synonym:** : H-D-Thr-OH.  
**Product code:** : BS13962.  
**CAS Number:** : 632-20-2.  
**Company Name:** : Briti Scientific.  
**Company Address:** : Plot No:78/B/13, SY-79,Phase-VI, Jeedimetla,Hyderabad-500 055.  
Telangana, India.

### Section 2- Composition / Information on Ingredients.

CAS No.	Chemical Name	Mol. Formula
632-20-2.	H-D-Thr-OH.	C <sub>4</sub> H <sub>9</sub> NO <sub>3</sub> .

### Section 3- Hazards Identification.

#### Classification

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

#### Label Elements

None required

#### Hazards not otherwise classified (HNOC)

None identified

### Section 4- First Aid Measures.

**Eye Contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if symptoms occur.

**Skin Contact:** Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

**Ingestion:** Clean mouth with water Get medical attention.

**Most important symptoms and effects:** No information available.

**Notes to Physician:** Treat symptomatically.





## Section 5- Fire Fighting Measures.

**Suitable Extinguishing Media:** Water spray, carbon dioxide (CO<sub>2</sub>), dry chemical, alcohol-resistant foam.

**Unsuitable Extinguishing Media:** No information available.

**Flash Point:** No information available.

**Method -** No information available.

**Autoignition Temperature:** No information available.

### **Explosion Limits**

Upper No data available.

Lower No data available.

**Sensitivity to Mechanical Impact:** No information available.

**Sensitivity to Static Discharge:** No information available.

### **Specific Hazards Arising from the Chemical**

Keep product and empty container away from heat and sources of ignition.

### **Hazardous Combustion Products**

Nitrogen oxides (NO<sub>x</sub>). Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

### **Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### **NFPA**

Health	Flammability	Instability	Physical hazards
0	1	0	N/A

## Section 6- Accidental Release Measures.

**Personal Precautions:** Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.

**Environmental Precautions:** Should not be released into the environment. See Section 12 for additional Ecological Information.

### **Methods for Containment and Clean Up:**

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

## Section 7- Handling and Storage.

**Handling:** Avoid contact with skin and eyes. Do not breathe dust. Do not ingest. If swallowed then seek immediate medical assistance.

**Storage:** Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Incompatible Materials. Strong oxidizing agents.





## Section 8- Exposure Control/Personal Protection.

**Exposure Guidelines:** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Engineering Measures:** None under normal use conditions.

### **Personal Protective Equipment**

**Eye/face Protection:** 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 and body protection:** Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection:** No protective equipment is needed under normal use conditions.

### **Hygiene Measures:**

Handle in accordance with good industrial hygiene and safety practice.

## Section 9- Physical and Chemical Properties.

**Appearance:** White to Almost white powder to crystal

**Odor:** Odorless.

**Odor Threshold:** No information available.

**pH:** No information available.

**Melting Point/Range:** >224°C.

**Boiling Point/Range:** 345.8°C.

**Flash Point:** No information available.

**Evaporation Rate:** No information available.

**Flammability (solid,gas):** Not applicable.

### **Flammability or explosive limits:**

Upper No information available.

Lower No information available.

**Vapor Pressure:** No information available.

**Density:** 1.3 g/cm<sup>3</sup>.

**Solubility:** Soluble in water.

**Partition coefficient; n-octanol/water:** No data available.

**Autoignition Temperature:** No data available.

**Decomposition Temperature:** No data available.

**Viscosity:** No data available.

**Molecular formula:** C<sub>4</sub>H<sub>9</sub>NO<sub>3</sub>.

**Molecular Weight:** 119.12 g/mol.

## Section 10- Stability and Reactivity.

**Reactive Hazard:** None known, based on information available.

**Stability:** Stable under normal conditions.

**Conditions to Avoid:** Avoid dust formation. Incompatible products.





**Incompatible Materials:** Strong oxidizing agents.

**Hazardous Decomposition Products:** Nitrogen oxides (NO<sub>x</sub>), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>).

**Hazardous Polymerization:** Hazardous polymerization does not occur.

**Hazardous Reactions:** None under normal processing.

## Section 11- Toxicological Information.

### **Acute Toxicity**

**Product Information:** No acute toxicity information is available for this product.

### **Component Information**

**Toxicologically Synergistic Products:** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Irritation:** No information available.

**Sensitization:** No information available.

**Mutagenic Effects:** No information available.

**Reproductive Effects:** No information available.

**Developmental Effects:** No information available.

**Teratogenicity:** No information available.

STOT - single exposure None known

STOT - repeated exposure None known

**Aspiration hazard:** No information available.

**Symptoms / effects, both acute and delayed:** No information available.

**Endocrine Disruptor Information:** No information available.

**Other Adverse Effects:** The toxicological properties have not been fully investigated.

## Section 12- Ecological Information.

**Ecotoxicity:** Do not empty into drains.

**Persistence and Degradability:** Soluble in water Persistence is unlikely based on information available.

**Bioaccumulation/ Accumulation:** No information available.

**Mobility:** Will likely be mobile in the environment due to its water solubility.

## Section 13- Disposal Considerations.

**Waste Disposal Methods:** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.





### Section 14- Transport Information.

**DOT:** Not regulated.  
**TDG:** Not regulated.  
**IATA:** Not regulated.  
**IMDG/IMO:** Not regulated.

### Section 15- Regulatory Information.

**Legend:**

TSCA - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

**TSCA 12(b)** - Notices of Export: Not applicable.

**U.S. Federal Regulations**

SARA 313: Not applicable.

SARA 311/312 Hazard Categories See section 2 for more information.

CWA (Clean Water Act): Not applicable.

**Clean Air Act:** Not applicable.

**OSHA** - Occupational Safety and

Health Administration: Not applicable.

**CERCLA:** Not applicable.

**California Proposition 65:** This product does not contain any Proposition 65 chemicals.

### Section 16- Other Information.

Briti Scientific provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

