



## MATERIAL SAFETY DATA SHEET

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Issue Date:

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

**Product Name:** : D-(-)-Tyrosine reference standard, Anstan<sup>®</sup>.  
**Synonym:** : 3-(4-Hydroxyphenyl)-D-alanine.  
**Product code:** : BS13966.  
**CAS Number:** : 556-02-5.  
**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
556-02-5.	H-D-Tyr-OH.	C <sub>9</sub> H <sub>11</sub> NO <sub>3</sub> .

### Section 3- Hazards Identification.

#### Classification

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

Skin Corrosion/Irritation: Category 2

Serious Eye Damage/Eye Irritation: Category 2

Specific target organ toxicity (single exposure): Category 3

Target Organs - Respiratory system

#### Label Elements

**Signal Word:** Warning.

#### Hazard statements

Causes skin irritation,

Causes serious eye irritation.

May cause respiratory irritation.



USA: #1004, Boston, Massachusetts, 02116, United States. India: Jeedimetla, Hyderabad-500 055, Telangana.

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### **Precautionary Statements:**

#### **Prevention**

Wash face, hands and any exposed skin thoroughly after handling.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Avoid breathing dust/fume/gas/mist/vapours/spray.  
Use only outdoors or in a well-ventilated area.

#### **Inhalation**

**IF INHALED:** Remove victim to fresh air and keep at rest in a position comfortable for breathing  
Call a POISON CENTER or doctor/physician if you feel unwell.

#### **Skin**

**IF ON SKIN:** Wash with plenty of soap and water If skin irritation occurs: Get medical advice/attention Take off contaminated clothing and wash before reuse.  
**Storage:** Store in a well-ventilated place. Keep container tightly closed, Store locked up.

#### **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 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. Thermal decomposition can lead to release of irritating gases and vapours.

### 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
2	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 containers tightly closed in a dry, cool and well-ventilated place. 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:** Ensure adequate ventilation, especially in confined areas. Ensure that eye wash stations and safety showers are close to the workstation location.

### 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.

<b>Appearance:</b>	White to Light yellow powder to crystal.
<b>Odor:</b>	No information available.
<b>Odor Threshold:</b>	No information available.
<b>pH:</b>	No information available.
<b>Melting Point/Range:</b>	314°C.
<b>Boiling Point/Range:</b>	No information available
<b>Flash Point:</b>	No information available
<b>Evaporation Rate:</b>	No information available
<b>Flammability (solid,gas):</b>	Not applicable
<b>Flammability or explosive limits:</b>	
Upper	No information available
Lower	No information available
<b>Vapor Pressure</b>	No information available
<b>Density</b>	1.2375 g/cm <sup>3</sup> .
<b>Solubility</b>	Soluble in water.
<b>Partition coefficient; n-octanol/water</b>	No data available
<b>Autoignition Temperature</b>	No data available
<b>Decomposition Temperature</b>	No data available
<b>Viscosity</b>	No data available
<b>Molecular</b>	C <sub>9</sub> H <sub>11</sub> NO <sub>3</sub> .
<b>Molecular Weight</b>	181.19 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 Respiratory system.

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.

