



## MATERIAL SAFETY DATA SHEET

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Issue Date:

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

**Product Name:** : Lactose anhydrous reference standard, AnStan<sup>®</sup>.  
**Synonym:** : D-(+)-Lactose.  
**Product code:** : BS11839.  
**CAS Number:** : 63-42-3.  
**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
63-42-3	D-(+)-Lactose.	C <sub>12</sub> H <sub>22</sub> O <sub>11</sub> .

### Section 3- Hazards Identification.

#### Classification

Classification under 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:** Do NOT induce vomiting. Get medical attention.

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

**Notes to Physician:** Treat symptomatically.





## Section 5- Fire Fighting Measures.

**Suitable Extinguishing Media:** Carbon dioxide (CO<sub>2</sub>), Powder, Water spray, In case of major fire and large quantities, Evacuate area, Fight fire remotely due to the risk of explosion.

**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:** 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	0	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:** Ensure adequate ventilation. Wear personal protective equipment/face protection. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. Avoid dust formation.

**Storage:** Keep containers tightly closed in a dry, cool and well-ventilated place.

## 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.





### 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:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

### Hygiene Measures:

Handle in accordance with good industrial hygiene and safety practice

## Section 9- Physical and Chemical Properties.

<b>Appearance:</b>	White to Off-White Solid.
<b>Odor:</b>	Odorless.
<b>Odor Threshold:</b>	No information available.
<b>pH:</b>	No information available.
<b>Melting Point/Range:</b>	222.8°C.
<b>Boiling Point/Range:</b>	397.76°C.
<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>	1.5300 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>12</sub> H <sub>22</sub> O <sub>11</sub> .
<b>Molecular Weight</b>	342.3 g/mol.

## Section 10- Stability and Reactivity.

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

**Stability:** Stable under normal conditions.

**Conditions to Avoid:** Incompatible products.





**Incompatible Materials:** Oxidizing agent.

**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**

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
beta.-D-Lactose	LD50 > 10 g/kg ( Rat )	Not listed	Not listed

**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.

