



MATERIAL SAFETY DATA SHEET

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Issue Date:

1- Chemical Product Information and Company Identification.

Product Name: : D-Leucine reference standard, Anstan[®].
Synonym: : D-2-Amino-4-methylpentanoic acid; D-Leu.
Product code: : BS13971.
CAS Number: : 328-38-1.
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
328-38-1	H-D-Leu-OH.	C ₆ H ₁₃ NO ₂ .

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: 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 (CO₂). Dry chemical. 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.

Hazardous Combustion Products

Nitrogen oxides (NO_x). Carbon monoxide (CO). Carbon dioxide (CO₂).

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: 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. Refer product specification and/or product label for specific storage temperature requirement. Keep container tightly closed.





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 powder to crystalline.

Odor: Odorless.

Odor Threshold: No information available.

pH: No information available.

Melting Point/Range: >300° C.

Boiling Point/Range: No information available.

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 1.2930 g/cm³.

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: C₆H₁₃NO₂.

Molecular Weight: 131.18 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: Strong oxidizing agents.

Hazardous Decomposition Products: Nitrogen oxides (NO_x), Carbon monoxide (CO), Carbon dioxide (CO₂).

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. See actual entry in RTECS for complete information.

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.

