SECTION-1: Identification of the substance / mixture and the company / undertaking

Catalogue Number	CS-BX-02764
Product Name	Boron Trifluoride Dihydrate 96%
CAS No.	13319-75-0
Category	Fine Chemicals
Synonyms	Boron trifluoride dihydrate; Trifluoroborane dihydrate
Brand	Clearsynth Labs Ltd.
Identified uses	Laboratory Chemicals
Uses advised against	Not available
Company	Clearsynth Labs Ltd. Mumbai, India
Emergency Phone #	+91-22-245045900
REACH No.	Not available

SECTION 2: Hazards identification

Disclaimer: This is sample MSDS. Please email **sales@clearsynth.com** for more details.

2.1 Classification of the substance or mixture-Regulation (EC) No 1272/2008:

Acute toxicity (Category 4)

2.2 Label Elements

Signal Word: Warning



Hazard Statement(s)

Code	Statement
H302+H332	Harmful if swallowed. Harmful if inhaled.
H302	Harmful if swallowed.
H314	Not available
H318	Causes serious eye damage.

H330	Not available
H332	Harmful if inhaled.
H335	Not available
H372	Not available
H373	Not available

Precautionary Statement(s)

Code	Statement
P260	Not available
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P264+P265	Not available
P270	Not available
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	Not available
P301+P317	Not available
P301+P330+P331	Not available
P302+P361+P354	Not available
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P354+P338	Not available
P316	Not available
P317	Not available
P319	Get medical help if you feel unwell.
P320	Not available
P321	Specific treatment (see … on this label).
P330	Not available
P363	Not available
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

P501	Dispose of contents/container in accordance with local/regional/national/international regulation

SECTION 3: Composition / information on ingredients

3.1 Substance

Component : Boron Trifluoride Dihydrate 96%
CAS Number : 13319-75-0
Molecular Formula : BF3H4O2
Molecular Weight : 103.84
Parent Chemical : -
Synonyms : Boron trifluoride dihydrate; Trifluoroborane dihydrate
Concentration : Not available

SECTION 4: First aid measures

SECTION 4: First-aid measures

4.1 Description of first aid measures
- General advice: Remove contaminated clothing and shoes. Seek medical attention if symptoms persist or are severe.
- Inhalation: Move person to fresh air. Keep at rest. If breathing is difficult, seek medical attention.
- Skin contact: Wash immediately with plenty of water. Seek medical attention if irritation, pain, or burns occur.
- Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing and obtain medical attention.
- Ingestion: Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention.

4.2 Most important symptoms/effects, acute and delayed
- Corrosive effects/irritation to eyes, skin, and respiratory tract: No data available.
- Other symptoms: No data available.

4.3 Indication of immediate medical attention and special treatment needed
- Treat symptomatically. No data available on specific antidote.

SECTION 5: Firefighting measures

SECTION 5: Fire-fighting measures

5.1 Extinguishing media
- Suitable extinguishing media: Use extinguishing media appropriate for surrounding fire (e.g., water spray, dry chemical, foam, carbon dioxide).
- Unsuitable extinguishing media: Not available.

5.2 Special hazards arising from the substance or mixture
- Hazardous combustion products: Hydrogen fluoride and boron oxides may be formed. Other decomposition products: No data available.
- Specific hazards: Container may rupture when heated. Substance may release irritating/corrosive fumes when heated or in contact with moisture. No data available.

5.3 Advice for firefighters
- Wear self-contained breathing apparatus (SCBA) and full protective gear.
- Cool containers with water spray from a safe distance.
- Prevent fire-fighting water from entering drains or waterways.

SECTION 6: Accidental release measures

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
- Evacuate unnecessary personnel. Ensure adequate ventilation.
- Avoid breathing dust/mist/vapors. Avoid contact with skin and eyes.
- Wear appropriate PPE (see Section 8).

6.2 Environmental precautions
- Prevent further leakage or spillage if safe to do so.
- Avoid release to the environment. Prevent entry into drains, surface water, and soil.

6.3 Methods and materials for containment and cleaning up
- Contain spill. Collect using non-sparking tools and place in a suitable, labeled container for disposal.
- For small spills: Absorb with inert material (e.g., dry sand/vermiculite) and collect.
- Clean contaminated area with water after material pickup, if compatible and safe.

6.4 Reference to other sections
- See Section 8 for exposure controls/personal protection and Section 13 for disposal considerations.

SECTION-7: Handling and storage

SECTION 7: Handling and storage

7.1 Precautions for safe handling
- Handle in a well-ventilated area or fume hood.
- Avoid contact with skin, eyes, and clothing. Avoid breathing dust/mist/vapors.
- Keep container tightly closed when not in use.
- Do not eat, drink, or smoke when using this product. Wash hands thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities
- Store in a cool, dry, well-ventilated place.
- Keep container tightly closed and properly labeled.
- Protect from moisture. Store away from incompatible materials.
- Incompatible materials: Strong bases; strong oxidizing agents; reactive metals: No data available.

7.3 Specific end use(s)
- Fine chemical / laboratory use. No data available.

SECTION 8: Exposure controls / personal protection

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
- Occupational exposure limits: Not available.

- Biological limit values: Not available.

8.2 Exposure controls
- Engineering controls: Use local exhaust ventilation or fume hood. Provide eyewash station and safety shower.
- Personal protective equipment (PPE):
- Eye/face protection: Chemical safety goggles and/or face shield.
- Skin protection: Chemical-resistant gloves; protective clothing.
- Respiratory protection: If ventilation is inadequate, use appropriate respiratory protection. Specific respirator type: Not available.
- Hygiene measures: Remove contaminated clothing and wash before reuse. Wash hands after handling.
- Environmental exposure controls: Avoid release to the environment; use appropriate containment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Test	Result
Appearance	No data available
IR spectrum	No data available
pH	No data available
Solubility	No data available

Property	Value
a) Physical State	No data available
b) Color	No data available
c) Odor	No data available
d) pH	No data available
e) Vapour Pressure	No data available
f) Viscosity	No data available
g) Initial Boiling Point and boiling range	No data available
h) Melting Point / Freezing Point	No data available
i) Auto Ignition Temperature	No data available
j) Flash Point	No data available
k) Explosion Limit, Lower	No data available
l) Explosion Limit, Upper	No data available

Property	Value
m) Decomposition Temperature	No data available
n) Loss on Drying	No data available
o) Relative Density	No data available
p) Solubility (in DMSO)	No data available
q) Oxidizing Properties	No data available

SECTION 10: Stability and reactivity

SECTION 10: Stability and reactivity

10.1 Reactivity
- No data available.

10.2 Chemical stability
- Stable under recommended storage conditions. No data available.

10.3 Possibility of hazardous reactions
- No data available.

10.4 Conditions to avoid
- Moisture, heat, and incompatible materials: No data available.

10.5 Incompatible materials
- Strong bases; strong oxidizing agents: No data available.

10.6 Hazardous decomposition products
- Hydrogen fluoride; boron oxides; other fluorinated species: No data available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
- Acute toxicity: LC50 (rat) = 1,210 mg/m3/4hr
- Skin corrosion/irritation: No data available.
- Serious eye damage/eye irritation: No data available.
- Respiratory or skin sensitization: No data available.
- Germ cell mutagenicity: No data available.
- Carcinogenicity: No data available.
- Reproductive toxicity: No data available.
- STOT-single exposure: No data available.
- STOT-repeated exposure: No data available.
- Aspiration hazard: No data available.

Likely routes of exposure
- No data available.

Symptoms related to the physical, chemical and toxicological characteristics
- Not available.

SECTION 12: Ecological information

SECTION 12: Ecological information

12.1 Toxicity
- No data available.

12.2 Persistence and degradability
- No data available.

12.3 Bioaccumulative potential
- No data available.

12.4 Mobility in soil
- No data available.

12.5 Results of PBT and vPvB assessment
- Not available.

12.6 Endocrine disrupting properties
- No data available.

12.7 Other adverse effects
- No data available.

SECTION 13: Disposal considerations

SECTION 13: Disposal considerations

13.1 Waste treatment methods
- Dispose of contents/container in accordance with local/regional/national/international regulations.
- Do not discharge to drains or the environment.
- Contaminated packaging: Dispose of as hazardous waste if contaminated.
- Recommended waste code: Not available.

SECTION 14: Transport information

SECTION 14: Transport information

- UN number: Not available.
- UN proper shipping name: Not available.
- Transport hazard class(es): Not available.
- Packing group: Not available.
- Environmental hazards: Not available.
- Special precautions for user: Not available.
- Transport in bulk according to IMO instruments: Not available.

SECTION 15: Regulatory information

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Regulations: Not available.

15.2 Chemical safety assessment
- No data available.

SECTION 16: Other information

SECTION 16: Other information

- Product name: Boron Trifluoride Dihydrate 96%
- Catalog No.: CS-BX-02764
- CAS No.: 13319-75-0
- Synonyms: Boron trifluoride dihydrate; Trifluoroborane dihydrate
- Supplier: Clearsynth Labs Ltd., Mumbai, India
- Emergency phone: +91-22-245045900

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