

MATERIAL SAFETY DATA SHEET

SDS/MSDS

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

1.1 Product identifiers

Product name : Sodium Triacetoxymethylborohydride

CAS-No. : 56553-60-7

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Industrial & for professional use only.

1.3 Details of the supplier of the safety data sheet

Company : Bio-Chem Chemicals
5455 Nicholson Road, Science Market
Ambala Cantt, 133001 - Haryana
+91 82952 41953
info@biofinechemical.com - www.biofinechemical.com

1.4 Emergency telephone number

Emergency Phone # +91 99921 51495 (10.00am - 06.30pm) (Office Hours)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flammable solids (Category 2), H228

Substances and mixtures, which in contact with water, emit flammable gases (Category 2), H261

Skin irritation (Category 2), H315

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Danger

Hazard statement(s)

H228

Flammable solid.

H261

In contact with water releases flammable gases.

H315

Causes skin irritation.

H335

May cause respiratory irritation.

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P231 + P232 Handle under inert gas. Protect from moisture.
P261 Avoid breathing dust.
P422 Store contents under inert gas.

Supplemental Hazard information (EU)

EUH014 Reacts violently with water.

2.3 Other hazards

Reacts violently with water.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms : STAB

Formula : $C_6H_{10}BNaO_6$
Molecular weight : 211.94 g/mol
CAS-No. : 56553-60-7

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
Borate(1-), tris(acetato-kappa.O)hydro-, sodium, (T-4)-		
CAS-No. 56553-60-7	Flam. Sol. 2; Water-react. 2; Skin Irrit. 2; STOT SE 3; H228, H261, H315, H335	<= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Dry powder

5.2 Special hazards arising from the substance or mixture

Carbon oxides, Borane/boron oxides, Sodium oxides

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Do not flush with water. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Store under inert gas. Never allow product to get in contact with water during storage.

Storage class (TRGS 510): Hazardous materials, which set free flammable gases upon contact with water

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Impervious clothing, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use (EN 143) respirator cartridges as a backup to engineering controls. If the full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

a) Appearance	Form: solid
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	116 - 120 °C
f) Initial boiling point and boiling range	No data available
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	The substance or mixture is a flammable solid with the category 2. - Flammability (solids)
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	1.43 g/cm ³ at 20.5 °C
n) Water solubility	Decomposes in contact with water.
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity**10.1 Reactivity**

Reacts violently with water.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Reacts violently with water.

10.4 Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight. Exposure to moisture

10.5 Incompatible materials

Strong oxidizing agents, Water, Alcohols, Acids, Keep away from water.

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Borane/boron oxides, Sodium oxides

Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male and female - > 2,000.0 mg/kg(Borate(1-), tris(acetato-.kappa.O)hydro-, sodium, (T-4)-)

Inhalation: No data available(Borate(1-), tris(acetato-.kappa.O)hydro-, sodium, (T-4)-)

Skin corrosion/irritation

Skin - Rabbit(Borate(1-), tris(acetato-.kappa.O)hydro-, sodium, (T-4)-)

Result: Irritating to skin.

Serious eye damage/eye irritation

No data available(Borate(1-), tris(acetato-.kappa.O)hydro-, sodium, (T-4)-)

Respiratory or skin sensitisation

Maximisation Test - Guinea pig(Borate(1-), tris(acetato-.kappa.O)hydro-, sodium, (T-4)-)

Does not cause skin sensitisation.

(OECD Test Guideline 406)

Germ cell mutagenicity

No data available(Borate(1-), tris(acetato-.kappa.O)hydro-, sodium, (T-4)-)

in vitro assay(Borate(1-), tris(acetato-.kappa.O)hydro-, sodium, (T-4)-)

Other cell types

Result: negative

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available(Borate(1-), tris(acetato-.kappa.O)hydro-, sodium, (T-4)-)

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation.(Borate(1-), tris(acetato-.kappa.O)hydro-, sodium, (T-4)-)

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available(Borate(1-), tris(acetato-.kappa.O)hydro-, sodium, (T-4)-)

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.(Borate(1-), tris(acetato-.kappa.O)hydro-, sodium, (T-4)-)

SECTION 12: Ecological information

12.1 Toxicity

No data available

12.2 Persistence and degradability

Biodegradability Biochemical oxygen demand - Exposure time 28 d(Borate(1-), tris(acetato-.kappa.O)hydro-, sodium, (T-4)-)
(OECD Test Guideline 301)
Remarks: Readily biodegradable, according to appropriate OECD test.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available(Borate(1-), tris(acetato-.kappa.O)hydro-, sodium, (T-4)-)

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

No data available

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber b highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information**14.1 UN number**

ADR/RID: 1409

IMDG: 1409

IATA: 1409

14.2 UN proper shipping name

ADR/RID: METAL HYDRIDES, WATER-REACTIVE, N.O.S. (Borate(1-), tris(acetato-.kappa.O)hydro-, sodium, (T-4)-)

IMDG: METAL HYDRIDES, WATER-REACTIVE, N.O.S. (Borate(1-), tris(acetato-.kappa.O)hydro-, sodium, (T-4)-)

IATA: Metal hydrides, water-reactive, n.o.s. (Borate(1-), tris(acetato-.kappa.O)hydro-, sodium, (T-4)-)

14.3 Transport hazard class(es)

ADR/RID: 4.3

IMDG: 4.3

IATA: 4.3

14.4 Packaging group

ADR/RID: II

IMDG: II

IATA: II

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

No data available

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

EUH014

Reacts violently with water.

H228	Flammable solid.
H261	In contact with water releases flammable gases.
H315	Causes skin irritation.
H335	May cause respiratory irritation.