

GHS Safety Data Sheet

SDS No. : BBR01LAEG

Date Issued : 2005/05/18

Last updated : 2022/08/23

Section 1. Identification of the substance or mixture and of the supplier

Product Information

Product name: B(OCH₃)₃ Boron trimethoxide (TMB)

Product number:	Purity	Form
BBR01LB	99.999%(5N)	liquid
—	99.9999%(6N)~99.999999(8N)	liquid

Company Information:

Manufacturer : Kojundo Chemical Laboratory Co., Ltd.

1-28, 5-chome, Chiyoda, Sakado-shi, Saitama Japan 350-0284

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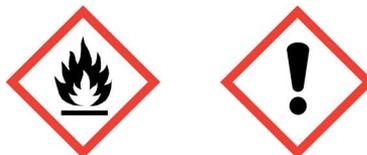
Recommended uses and restrictions on use: For research purposes

Section 2. Hazards identification

GHS Classification

Health Hazards	Environmental Hazards	Physical Hazards
Acute toxicity (dermal) ; Category 4 Serious eye damage/eye irritation ; Category 2 Specific target organ toxicity, single exposure ; Category 3	No data available	Flammable Liquid : Category 2 Substances and mixtures which, in contact with water, emit flammable gases : Not classified Oxidizing liquids : Not classified

GHS Label: F, W



Pictograms or symbols:

Warning word: DANGER

Hazard information	Description of precaution
Highly flammable liquid and vapour Harmful in contact with skin Causes serious eye irritation. May cause respiratory irritation	Keep away from heat/sparks/open flames/hot surfaces.-No smoking. Use explosion-proof electrical/ ventilating/ lighting equipment. Take precautionary measures static discharge. Wear protective gloves/protective clothing/eye protection/respiratory protection/face protection during handling. Avoid breathing mist/vapors/spray. Do not eat, drink or smoke when using this product, and wash hands thoroughly after handling. Take off the contaminated clothing and wash before reuse. Keep container or bottle tightly closed when not in use. Use only outdoors or in well-ventilated area. In case of fire: Dry chemical powder, Alcohol resistance foam, Carbon dioxide, Dry sand for extinction. Do not use straight streams. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF ON SKIN: Remove immediately all contaminated clothing and rinse skin with water/shower. Then wash skin with plenty of soap and water. If skin irritation occurs, get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.



High Purity Materials

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Call a POISON CENTER or doctor/physician if you feel unwell.
 Protect from sunlight. Store in a cool, dry and well-ventilated place.
 Keep container tightly closed.
 Store locked up.
 Dispose of contents/ container in accordance with local/national regulations.

Section 3. Composition / information on ingredients

Chemical or common name: Trimethyl borate, **TMOB®**
 Chemical formula: B(OCH₃)₃
 Single Substance or Compound: Single substance
 Composition: 100%
 CAS #: 121-43-7
 RTECS#: ED5600000
 TSCA inventory : Listed
 EINECS: 2044689

Section 4. First aid measures

Eye contact: Promptly wash eyes with plenty of water while lifting the eye lids.
 Continue to rinse for at least 15 minutes and get medical attention.
 Skin contact: Promptly flush contaminated skin with soap or mild detergent and water.
 Contact physician if irritation continues.
 Inhalation: Remove the exposed person immediately and provide fresh air.
 Get medical attention.
 Ingestion: Rinse mouth and throat with water. Get medical attention immediately.

Section5. Fire fighting measures

Extinguishing media: Dry chemical powder, Alcohol resistance foam, Carbon dioxide, Dry sand.
 DO NOT use a direct water stream.
 Fire fighting: Flammable material. Will be ignited by heat, sparks or flames.
 Remove containers to safe place if possible.
 Use water spray to Cool down nearby structures and containers.
 In case of fire, may liberate toxic gases/ fume.
 Self-contained breathing apparatus and full protective clothing should be used, if the material is involved in fire

Section 6. Accidental release measures

Personal Precautions:

Workers should use protective wears to prevent contact with the spilt adhesive and inhalation of its vapor/dusts.

Environmental hazard precautions:

Shut off leak if without risk.
 Prevent flow out to river, etc. so as not to badly affect.

Method for containment and cleaning up:

Remove all sources of ignition.
 Avoid unnecessary contacts with spills.
 Indoor leakage: Ventilate as much as possible until the cleaning is completed.
 Outdoor leakage: Work from the windward and evacuate the leeward crowd.
 Absorb or cover with vermiculite or other suitable absorbent, and dispose of DOT-approved waste containers as much as possible.
 Carefully wash spill site with plenty of water after material pick up.



Section 7. Handling and storage

Precautions to be taken in handling:

Safe handling: Handle the material in a dry inert gas atmosphere, utilizing glove bag or glove box. Keep away from moisture when handling.
 Keep container or bottle tightly closed when not in use.
 Avoid prolonged or repeated exposure.
 Handling worker wears suitable protective clothing.
 Keep away from heat, sparks and naked flame.
 Electrically ground all equipment when handling this material.

Precautions to be taken in storage:

General precautions: Store the material in a sealed container.
 Store in a cool, dry, well ventilated and dark place away from incompatible materials.
 Keep away from any heat, sparks, and flames.

Section 8. Exposure controls / personal protection

Exposure guideline: ACGIH(2019) : No data available
 OSHA(2006) : No data available

Facility measures: Local ventilation of closed work room or total proper ventilation to prevent inhalation.

Protective ware: Wear appropriate NIOSH/MSHA-approved respirator, safety goggles, protective gloves.

Section 9. Physical and chemical properties

Color and Form: Colorless liquid

Chemical formula: B(OCH₃)₃

Formula weight: 103.9

Melting point: -29 °C

Boiling point: 69 °C

Vapor pressure: 18 kPa (25 °C)

Density: 0.92 g/cm³

Solubility in water: Decomposes

Soluble in : Methanol, ether and other organic solvents.

Flammability: Flammable substance

Flash point: -7.3 °C (closed cup)

Oxidation: None

Section10. Stability and reactivity

Stability: Stable in closed container under room temperature.
 May decompose on exposure to air and moisture.

Reactivity

Condition to avoid: Heat, water and moisture.

Incompatibility: Strong oxidizing agents, strong acids.

Section11. Toxicological information

Acute toxicity(Oral): GHS : Not classified
 Rat LD₅₀ = 6140 mg/kg (HSDB(2006))

Acute toxicity(Dermal): GHS; Category 4 ; Harmful in contact with skin.
 Rabbit LD₅₀ = 1980 mg/kg (HSDB(2006))



Skin corrosive / irritation:	GHS : No data available
Serious eye damage / irritation:	GHS : Category 2 ; Causes serious eye irritation.
Respiratory sensitization:	GHS : No data available
Skin sensitization:	GHS : No data available
Germ cell mutagenicity:	GHS : No data available
Carcinogenicity:	GHS : No data available
Reproductive toxicity:	GHS : No data available
Specific target organ toxicity	
– single exposure:	GHS : Category 3; May cause respiratory irritation.
– repeated exposure:	GHS : No data available
Aspiration hazard:	GHS : No data available

Section12. Ecological information

Ecotoxicity:

Hazardous to the aquatic environment

 – short-term (acute) hazard : GHS : No data available

 – long-term (chronic) hazard : GHS : No data available

Hazardous to the ozone layer GHS : No data available
No Freon or Halon

Fish toxicity: No data available

Degradability: No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

Section13. Disposal considerations

Disposal method: User of the product should contract with the local government or licensed 'Industrial Waste Haulers' for disposal of waste.

Section 14. Transport information

UN number:	2416
IATA shipping name:	TRIMETHYL BORATE
IATA classification:	Class 3 (Flammable liquids)
IATA packing group:	II
HS code:	2920.90
Marine pollution:	None

Section 15. Regulatory information

TSCA inventory: Listed.

Please refer to any other local / national measures that may be relevant.

Section 16. Other information

This SDS is for provision of information, and it does not represent a guarantee the properties or safeties of the product.

The information herein is based on the references we could obtained and the present state of our knowledge, however, this SDS does not always cover all information about the product. Some new information or amendments may be added afterwards.

Prior to use, please investigate the laws and regulations of the organization, area and country where the product is to be used. The information is intended to ordinary usage, in case of special handling, sufficient care should be taken.



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