

SAFETY DATA SHEET

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SECTION 1. IDENTIFICATION

Product Identifier: (5N) 99.999% Boron Trichloride Dimethyloctylamine Complex

Product Code: BO-OMX-05

CAS Number: 34762-90-8

Relevant identified uses of the substance: Scientific research and development

Supplier details:

American Elements
10884 Weyburn Ave.
Los Angeles, CA 90024
Tel: +1 310-208-0551
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Emergency telephone number:
+1 800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

Emergency overview

See below for product details



Signal Word: Warning

Hazard statements

H373 May cause damage to the lung and the digestive system through prolonged or repeated exposure. Route of exposure: Inhalative.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P314 Get medical advice/attention if you feel unwell.

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

Acute health effects

May be harmful if swallowed. Causes eye and skin irritation. Irritating to respiratory system. May cause allergic reaction. May decompose to irritating or corrosive components on exposure to water or high heat.

Chronic health effects

Prolonged or repeated contact may irritate the skin, causing dermatitis.

Signs/Symptoms of exposure

Irritation

Routes of exposure/entry

Skin Contact, Inhalation, Eye Contact

Target organs

Eyes, Gastrointestinal tract, Respiratory tract, Skin

Medical conditions aggravated by exposure

Pre-existing skin problems may be aggravated by prolonged or repeated contact.

Carcinogenic status

Not listed or regulated by IARC, NTP, OSHA, or ACGIH.

Reproductive effects

None Expected

Hazardous Decomposition Products:

Fumes, carbon dioxide, carbon monoxide, acrid smoke, hydrogen chloride

Conditions to avoid:

High heat, strong oxidizers

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name: Boron Trichloride Amine Complex (Boron Trichloride Dimethyloctylamine Complex)

Formula: $\text{BCl}_3\text{C}_{10}\text{H}_{23}\text{N}$

Cas No.: 34762-90-8

Mol. Weight: 274.47

SECTION 4. FIRST AID MEASURES

Description of first aid measures

If irritation or other symptoms (as noted above) occur or persist from any route of exposure, remove the affected individual from the area: see a physician/get medical attention.

If inhaled:

Supply patient with fresh air. If not breathing, provide artificial respiration. Keep patient warm.

Seek immediate medical advice.

In case of skin contact:

Immediately wash with soap and water; rinse thoroughly.

Seek immediate medical advice.

In case of eye contact:

Rinse opened eye for several minutes under running water. Consult a physician.

If swallowed:

Seek medical treatment.

SECTION 5. FIREFIGHTING MEASURES

NFPA flammability class: IIIB

Flash point: >200 °F (>93.3 °C) Closed Cup

Explosive range:

LEL Not Available

UEL Not Available

Fire and explosive properties

Product is not considered a fire hazard, but will burn if ignited.

Extinguishing media

NFPA Class IIIB (Combustible liquid): Use water spray, ABC dry chemical, foam or carbon dioxide. Water or foam may cause frothing. Use water to keep fire-exposed containers cool. Water spray may be used to flush spills away from exposures.

Fire fighting instructions

Wear self-contained breathing apparatus (SCBA) equipped with a full facepiece and operated in a pressure-demand mode (or other positive pressure mode) and approved protective clothing.

Personnel without suitable respiratory protection must leave the area to prevent significant exposure to hazardous gases from combustion, burning or decomposition. In an enclosed or poorly ventilated area, wear SCBA during cleanup immediately after a fire as well as during the attack phase of firefighting operations.

Unusual fire/explosion hazards

Irritating or toxic substances will be emitted upon burning, combustion or decomposition.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Containment techniques

Contain by diking with sand, earth or other non-combustible material. If spilled in an enclosed area, ventilate. Do not flush liquid into public sewer, water systems or surface waters.

Clean-up techniques

Wear proper personal protective clothing and equipment. Do not flush liquid into public sewer, water systems or surface waters. Eliminate ignition sources. Absorb spill with an inert material. Place into labeled, closed container; store in safe location to await disposal.

Evacuation instructions

Not Applicable

SECTION 7. HANDLING AND STORAGE

Avoid contact with skin, eyes, and clothing. Avoid inhalation of vapors. Wash thoroughly after handling.

Keep in closed or covered containers when not in use. Store in a cool, dry place with adequate

ventilation. Do not store near heat or open flames.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation

Use and store only with adequate ventilation or use respiratory protection.

Respiratory

If vapors are present, use a NIOSH/MSHA approved positive pressure, supplier air respirator.

Eye protection

If potential for splashing is present, splash goggles or a full-face shield should be worn.

Skin protection

Do not allow any skin contact. If potential for skin contact is present, impervious protection clothing should be worn. Neoprene coated fabric is recommended for this application.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless to yellow

Melting Point: 25-28°C

Water by KF: 0.1% max

Free DMOA: 0.8% max

pH: 3.5-6

Odor: Very slight

Vapor Density: Heavier than air

Vapor Pressure: <1mm Hg at 25°C

Solubility in water: Slight

Specific Gravity: 1.1

SECTION 10. STABILITY AND REACTIVITY

Stable, will react with oxidizing agents

Hazardous Polymerization: Will not autopolymerize

Conditions to avoid

Avoid exposure to moisture, ignition sources and elevated temperatures.

Incompatibility with other materials

Avoid contact with strong oxidizing agents.

Hazardous decomposition products

Thermal decomposition may produce smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion. Hydrogen chloride. Boron trichloride. Oxides of nitrogen.

Additional reactivity / stability information

None

Thermal processing emissions
Not Applicable

SECTION 11. TOXICOLOGICAL INFORMATION

LD50 Oral:
>5,000 mg/kg
LC50 Inhalation:
>2,500 mg/kg
Exposure Limits:
TLV: Not established
PEL: Not established

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Acquatic toxicity: No data available

Persistence and degradability No data available

Behavior in environmental systems: Bioaccumulative potential No data available

Mobility in soil: No data available

Additional ecological information:

General notes: Do not allow material to be released to the environment without official permits.

Results of PBT and vPvB assessment

PBT: N/A

vPvB: N/A

Other adverse effects No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Remove contaminated materials for disposal at a permitted facility using registered transporters.

SECTION 14. TRANSPORT INFORMATION

Not hazardous for transportation

Department of transportation 49CFR172.101-102

Classification: Not hazardous

DOT shipping name: Not regulated

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

Product related hazard informations:

Observe the general safety regulations when handling chemicals

National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

All components of this product are listed on the Canadian Domestic Substances List (DSL).

Information about limitation of use: For use only by technically qualified individuals.

Other regulations, limitations and prohibitive regulations

REACH - Pre-registered substances Substance is listed.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.