



Safety Data Sheet

In accordance with CFR 1910.1200 (OSHA HCS)

SDS No. 126

Review Date: September 12, 2019

1 Identification of substance and company

Product name: **Aluminum boride (1:2 atomic)**
Product code: 12817
Relevant use and restrictions on use: Research and product development
Manufacturer/Supplier: Noah Technologies Corporation
1 Noah Park
San Antonio, Texas 78249-3419
Phone: 210-691-2000
Fax: 210-691-2600
Web site: www.noahtech.com
Emergency information: CHEMTREC
800-424-9300

2 Hazards identification

Hazard statements: None
Precautionary statements: None
Hazards not otherwise classified: None
GHS Classification: Not a hazardous substance or mixture
HMIS ratings (scale 0-4):
Health hazard: 1
Flammability: 0
Physical hazard: 0

3 Composition/Information on ingredients

Chemical name: Aluminum boride (1:2 atomic)
CAS number: 12041-50-8
EC number: 234-923-7
Formula: AlB₂
Synonyms: Aluminum diboride

4 First aid measures

After inhalation: Move into fresh air. If not breathing, give artificial respiration
After skin contact: Wash off with soap and plenty of water
After eye contact: Flush eyes with plenty of water for at least 15 minutes
After ingestion: Never give anything by mouth to an unconscious person. Rinse mouth.
Information for doctor: Show this safety data sheet to the doctor in attendance
Symptoms/effects; acute and delayed: May be harmful by inhalation, ingestion or skin absorption. May cause irritation to eyes and skin. May be irritating to mucous membranes and upper respiratory tract.
Immediate medical attention and special treatment needed: No data available

5 Fire-fighting measures

Suitable and unsuitable extinguishing agents: Use extinguishing media most suitable to surrounding fire conditions.
Special hazards caused by the material, its products of combustion or resulting gases: Oxides of aluminum and boron
Special fire fighting procedures: Wear self-contained breathing apparatus. Always wear full protective equipment/ clothing in fire situations.
Unusual fire and explosion hazard: Emits toxic fumes under fire conditions

6 Accidental release measures

Person-related safety precautions: Avoid dust formation. Avoid breathing dust, vapors, mist or gas.
Measures for environmental protection: No special precautions required.
Measures for cleaning/collecting: Sweep up and shovel. Keep in suitable, closed containers for disposal.
Additional information: See Section 7 for information on safe handling
See Section 8 for information on personal protective equipment
See Section 13 for information on disposal
See Section 15 for regulatory information

7 Handling and storage

Information for safe handling:	Ensure adequate ventilation.
Information about protection against explosions and fires:	No data available
Storage requirements to be met by storerooms and containers:	Keep container tightly closed in a dry and well-ventilated place.
Incompatibility (avoid contact with):	Strong acids
Further information about storage conditions:	No additional information

8 Exposure controls/personal protection

Ventilation requirements:	Use with adequate ventilation
Components with exposure limits that require monitoring:	OSHA PEL: TWA 15 mg/m3 (total dust) OSHA PEL: TWA 5 mg/m3 (respirable)
Additional information:	None
General protective and hygienic measures:	The usual precautionary measures for handling chemicals should be adhered to Keep away from foodstuffs, beverages and food Instantly remove any soiled and impregnated garments Wash hands during breaks and at the end of the work Avoid contact with the eyes and skin
Personal protective equipment:	
Respiratory protection: (Use only NIOSH or CEN approved Equipment)	Filter-dust, fume, mist
Hand protection:	Handle with gloves. Neoprene/Natural rubber / Impervious Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with product.
Eye protection:	Safety glasses
Skin protection:	Protective work clothing sufficient to prevent contact.
Additional protective equipment:	Emergency eyewash and safety shower
Precautionary labeling:	Wash thoroughly after handling Do not get in eyes, on skin or on clothing Do not breathe dust, vapor, mist or gas

9 Physical and chemical properties

Physical state:	Powder or crystal
Color:	Reddish-black, brown
Odor:	No data available
Odor threshold:	No data available
Molecular Weight (Calculated):	48.60
pH	No data available
Melting point/freezing point/range:	1810 C
Boiling point/range:	No data available
Sublimation temperature/start:	No data available
Decomposition temperature:	No data available
Flammability (solid, gas):	No data available
Flash point:	Non-flammable
Autoignition temperature:	No data available
Danger of explosion:	No data available
Flammable limits:	
Lower:	No data available
Upper:	No data available
Evaporation Rate:	No data available
Vapor pressure (mm Hg):	No data available
Vapor density:	No data available
Specific gravity:	2.58
Bulk density:	No data available
Solubility in/Miscibility with water:	Insoluble
Partition coefficient n-octanol/water:	No data available
Viscosity:	No data available
Other information:	No additional information

10 Stability and reactivity

Reactivity:	No data available
Chemical stability:	Stable under recommended storage conditions
Possibility of hazardous reactions:	Emits toxic fumes under fire conditions
Conditions to be avoided:	No data available See section 7 for information on proper handling and storage

Materials to be avoided: Strong acids
Dangerous reactions: No data available
Hazardous decomposition products: Oxides of aluminum and boron
(thermal and other)

11 Toxicological information

LD/LC50 values that are relevant for classification: No data available
Irritation or corrosion of skin: No data available
Irritation or corrosion of eyes: No data available
Primary irritant or corrosive effect:
on the skin: Moderate
on the eye: Moderate
Sensitization: No data available
Potential health effects:
Inhalation: May cause irritation
Ingestion: No data available
Skin: May cause irritation
Eyes: May cause irritation
Signs and symptoms of exposure: May be harmful by inhalation, ingestion, or skin absorption. May cause eye irritation. May cause skin irritation. Material may be irritating to mucous membranes and upper respiratory tract.
Carcinogenicity: IARC: No component of this product is identified as probable, possible or confirmed human carcinogen by IARC
ACGIH: No component of this product is identified as a carcinogen or potential carcinogen by ACGIH
NTP: No component of this product is identified as a known or anticipated carcinogen by NTP
OSHA: No component of this product is identified as a carcinogen or potential carcinogen by OSHA
Additional information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

12 Ecotoxicological information

Toxicity:
Toxicity to fish: No data available
Toxicity to daphnia and other aquatic invertebrates: No data available
Toxicity to algae: No data available
Persistence and degradability:
Biodegradability: No data available
Bioaccumulative potential:
Bioaccumulation: No data available
Mobility in soil: No data available
Other adverse effects: No data available

13 Disposal considerations

Recommendation: Consult state, local or national regulation for proper disposal
Allow professional disposal company to handle waste
Must be specially treated under adherence to official regulations
Unclean packagings recommendation: Disposal must be made according to official regulations

14 Transport information

Land transport DOT

Proper shipping name: Chemicals Non-Hazardous
Technical name: Aluminum boride (1:2 atomic)

Air transport ICAO-TI and IATA-DGR:

Proper shipping name: Chemicals Non-Hazardous
Technical name: Aluminum boride (1:2 atomic)

UPS Ground / FedEx Ground

Proper shipping name: Chemicals Non-Hazardous
Technical name: Aluminum boride (1:2 atomic)

UPS Air

Proper shipping name: Chemicals Non-Hazardous
Technical name: Aluminum boride (1:2 atomic)

15 Regulatory information

SARA Section 302 Extremely Hazardous

components and corresponding TPQs:

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

SARA Section 311 / 312 hazards:

No SARA Hazards

SARA Section 313 components:

This material does not contain any chemical components with know CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313

California Proposition 65 components:

This product does not contain any chemicals known to the State of California to cause cancer, birth defects or any other reproductive harm.

TSCA:

This product is listed on the TSCA Inventory

16 Other information

The above information is accurate to the best of our knowledge. However, since data, safety standards and government regulation are subject to change and the conditions of handling and use, or misuse are beyond our control. NOAH MAKES NO WARRANTY, EITHER EXPRESSED OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIMS ALL LIABILITY FOR RELIANCE THEREON. User should satisfy himself that he has all current data relevant to his particular use.