

<a href="#">Boron Sulfide</a>		<a href="#">Pricing &gt;</a>
Linear Formula	B <sub>2</sub> S <sub>3</sub>	
Pubchem CID	123269	
MDL Number	N/A	
EC No.	234-504-9	
IUPAC Name	sulfanylidene (sulfanylideneboranylsulfanyl) borane	
Beilstein/Reaxys No.	N/A	
SMILES	S=BSB=S	
Inchl Identifier	InChI=1S/B2S3/c3-1-5-2-4	
Inchl Key	ZVTQDOIPKNCMAR-UHFFFAOYSA-N	
Signal Word	N/A	
Hazard Statements	N/A	
Hazard Codes	N/A	
Risk Codes	N/A	
Safety Statements	N/A	
Transport Information	N/A	

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## SAFETY DATA SHEET

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### SECTION 1. IDENTIFICATION

**Product Identifiers:** All applicable American Elements product codes for CAS #12007-33-9

**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  
Fax: +1 310-208-0351

Emergency telephone number:  
Domestic, North America +1 800-424-9300  
International +1 703-527-3887

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## SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture  
Classification according to Regulation (EC) No 1272/2008  
GHS02 Flame  
Water-react. 2 H261 In contact with water releases flammable gas.  
GHS06 Skull and crossbones  
Acute Tox. 2 H300 Fatal if swallowed.  
GHS07  
Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2A H319 Causes serious eye irritation.  
STOT SE 3 H335 May cause respiratory irritation.  
Classification according to Directive 67/548/EEC or Directive 1999/45/EC  
T; Toxic  
R25: Toxic if swallowed.  
Xi; Irritant  
R36/37/38: Irritating to eyes, respiratory system and skin.  
R31: Contact with acids liberates toxic gas.  
Information concerning particular hazards for human and environment:  
N/A  
Label elements  
Labelling according to Regulation (EC) No 1272/2008  
The substance is classified and labelled according to the CLP regulation.  
Hazard pictograms



GHS02  
GHS06  
Signal word  
Danger  
Hazard statements  
H261 In contact with water releases flammable gas.  
H300 Fatal if swallowed.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
Precautionary statements  
P231+P232 Handle under inert gas. Protect from moisture.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P405 Store locked up.

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

Hazard description:

WHMIS classification

B6 - Reactive flammable material

D1A - Very toxic material causing immediate and serious toxic effects

D2B - Toxic material causing other toxic effects

Classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)

HEALTH

FIRE

REACTIVITY

2

2

3

Health (acute effects) = 2

Flammability = 2

Reactivity = 3

Other hazards

Results of PBT and vPvB assessment

PBT:

N/A

vPvB:

N/A

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### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substances

CAS No. / Substance Name:

12007-33-9 Boron Sulfide

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### **SECTION 4. FIRST AID MEASURES**

Description of first aid measures

General information

Immediately remove any clothing soiled by the product.

In case of irregular breathing or respiratory arrest provide artificial respiration.

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:  
Do not induce vomiting; immediately call for medical help.  
Information for doctor  
Most important symptoms and effects, both acute and delayed  
No data available  
Indication of any immediate medical attention and special treatment needed  
No data available

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## **SECTION 5. FIREFIGHTING MEASURES**

Extinguishing media  
Suitable extinguishing agents  
CO<sub>2</sub>, sand, extinguishing powder. Do not use water.  
Special hazards arising from the substance or mixture  
If this product is involved in a fire, the following can be released:  
Hydrogen sulfide  
Sulfur oxides (SO<sub>x</sub>)  
Silicon oxide  
Advice for firefighters  
Protective equipment:  
Wear self-contained respirator.  
Wear fully protective impervious suit.

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures  
Mount respiratory protective device.  
Use personal protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Environmental precautions:  
Do not allow material to be released to the environment without official permits.  
Methods and materials for containment and cleanup:  
Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.  
Reference to other sections  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

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## **SECTION 7. HANDLING AND STORAGE**

Handling  
Precautions for safe handling  
Keep container tightly sealed.  
Store in cool, dry place in tightly closed containers.  
Ensure good ventilation at the workplace.  
Information about protection against explosions and fires:  
Protect from humidity and water.  
Reacts with acids forming hydrogen sulfide  
Conditions for safe storage, including any incompatibilities  
Requirements to be met by storerooms and receptacles:  
No special requirements.  
Information about storage in one common storage facility:  
Store away from oxidizing agents.  
Do not store together with acids.  
Further information about storage conditions:  
Keep container tightly sealed.  
Store in cool, dry conditions in well-sealed containers.  
Specific end use(s)  
No data available

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Additional information about design of technical systems:  
Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.  
Control parameters  
Components with limit values that require monitoring at the workplace:  
Not required.  
Additional information:  
No data  
Exposure controls  
Personal protective equipment  
Follow typical protective and hygienic practices for handling chemicals.

Keep away from foodstuffs, beverages and feed.  
Remove all soiled and contaminated clothing immediately.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.  
Maintain an ergonomically appropriate working environment.  
Breathing equipment:  
Use suitable respirator when high concentrations are present.  
Protection of hands:  
Impervious gloves  
Inspect gloves prior to use.  
The selection of suitable gloves not only depends on the material, but also on quality.  
Quality will vary from manufacturer to manufacturer.  
Eye protection:  
Safety glasses  
Body protection:  
Protective work clothing

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## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties  
Appearance:  
Form: Powder/ Granules  
Color: No data available  
Odor: No data available  
Odor threshold: No data available.  
pH: N/A  
Melting point/Melting range: 563 °C (1,045 °F)  
Boiling point/Boiling range: No data available  
Sublimation temperature / start: No data available  
Flash point: N/A  
Flammability (solid, gas)  
No data available.  
Ignition temperature: No data available  
Decomposition temperature: No data available  
Autoignition: No data available.  
Danger of explosion:  
Product does not present an explosion hazard.  
Explosion limits:  
Lower: No data available  
Upper: No data available  
Vapor pressure: N/A  
Density at 20°C (68 °F): 1.55 g/cm<sup>3</sup>, solid  
Relative density  
No data available.  
Vapor density  
N/A  
Evaporation rate  
N/A

Partition coefficient (n-octanol/water): No data available.  
Viscosity:  
Dynamic: N/A  
Kinematic: N/A  
Other information  
No data available

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## **SECTION 10. STABILITY AND REACTIVITY**

Reactivity  
Chemical stability  
Thermal decomposition / conditions to be avoided:  
Decomposition will not occur if used and stored according to specifications.  
Possibility of hazardous reactions  
Reacts with acids forming hydrogen sulfide  
Incompatible materials:  
Oxidizing agents  
Acids

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects  
Acute toxicity:  
Primary irritant effect:  
on the skin:  
Irritating effect.  
on the eye:  
Irritating effect.  
Sensitization:  
No sensitizing effects known.  
Other information (about experimental toxicology):  
Irritating to respiratory system  
Subacute to chronic toxicity:  
Inorganic silicon compounds may be acute inhalation irritants. Prolonged inhalation may cause pulmonary fibrosis known as silicosis.  
Additional toxicological information:  
To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

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## **SECTION 12. ECOLOGICAL INFORMATION**

Toxicity  
Aquatic 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:  
Do not allow undiluted product or large quantities of it  
to reach groundwater, water courses, or sewage  
systems.  
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

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste treatment methods  
Recommendation  
Consult official regulations to ensure proper disposal.  
Uncleaned packagings:  
Recommendation:  
Disposal must be made according to official  
regulations.

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## **SECTION 14. TRANSPORT INFORMATION**

UN-Number  
DOT, ADR, IMDG, IATA  
UN3134  
UN proper shipping name  
DOT, IMDG, IATA  
WATER-REACTIVE SOLID, TOXIC, N.O.S. (Boron  
sulfide)  
ADR  
3134 WATER-REACTIVE SOLID, TOXIC, N.O.S.  
(Boron sulfide)  
Transport hazard class(es)  
DOT  
Class  
4.3 Substances which, in contact with water, emit  
flammable gases.  
Label  
4.3+6.1  
Packing Group III  
ADR



Class  
4.3 (WT2) Substances which, in contact with water,  
emit flammable gases  
Label  
4.3+6.1  
IMDG, IATA  
Class  
4.3 Substances which, in contact with water, emit  
flammable gases.  
Label 4.3+6.1  
Packing Group III

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## **SECTION 15. REGULATORY INFORMATION**

Safety, health and environmental  
regulations/legislation specific for the substance or  
mixture  
National regulations  
All components of this product are listed in the U.S.  
Environmental Protection Agency Toxic  
Substances Control Act Chemical substance  
Inventory.  
Information about limitation of use:  
For use only by technically qualified individuals.  
Other regulations, limitations and prohibitive  
regulations  
Substances of very high concern (SVHC) according to  
REACH, Article 57  
Substance is not listed.  
REACH - Pre-registered substances  
Substance is listed.  
Chemical safety assessment:  
A Chemical Safety Assessment has not been carried  
out.

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## **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  
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