



SAFETY DATA SHEET

BORIC ACID

Product No: 006/02-US

Section 1 : Identification of the Substance and of the Company

Product Name : Boric Acid
Use of the Substance : Product for the Chemical or Agricultural Industry
Supplier : SQM Northamerica Corporation
Address : 3101 Towercreek Parkway, Suite 450
Atlanta, GA 30339
Telephone : (770) 916 9400
Fax : (770) 916 9401
E-mail Address : product_safety@sqm.com
Emergency Number : (800) 424 9300 (CHEMTREC)

Section 2 : Hazards Identification

Emergency Overview

May cause irritation to skin (redness and itching). Avoid contact and inhalation.

NFPA RATING

Health: 1
Flammability: 0
Reactivity: 1

HMIS RATING

Health: 1
Flammability: 0
Reactivity: 1

Potential Health Effects

Inhalation : Causes mild irritation to the mucous membranes of the respiratory tract. Symptoms may include coughing. May be absorbed from the mucous membranes and depending on exposure could result in the development of nausea, vomiting and diarrhoea.

Ingestion : Mildly harmful if swallowed. Nausea, vomiting and diarrhoea in case large amounts are ingested. This product is not intended for ingestion.

Skin Contact : Not significantly absorbed through the intact skin. Readily absorbed through damaged or burned skin, resulting in pain and further irritation.

Eye Contact : May cause irritation, eye redness, itching and pain.

Chronic Exposure : Laboratory experiments have shown toxic effects for reproduction and development in high doses not expected from normal use of this product.





Section 3 : Composition/Information on Ingredients

Chemical Name : Boric Acid
CAS No : 10043 – 35 – 3
EINECS No. : 233 – 139 – 2
Molecular Weight : 61.8
Formula : H₃BO₃

Section 4 : First Aid Measures

General Information

In case of persisting adverse effects consult a physician.

Specific Measures

Inhalation : Remove to fresh air. Get medical attention for any breathing difficulty.
Ingestion : Induce vomiting. Never give anything by mouth (oral) to an unconscious person.
Skin Contact : In case of irritation, remove clothing. Wipe excess from skin. Wash with soap and water for at least 5 minutes.
Eye Contact : Flush eyes with plenty of water, lifting lower and upper eyelids occasionally.

Section 5 : Firefighting Measures

Fire : Not considered to be a fire hazard. Non-flammable See Section 10 for hazardous thermal decomposition products.
Extinguishing Media
- Suitable : Any mean suitable for extinguishing surrounding fire. Spray water for small fires. For large fires flood with abundant water. Carbon dioxide, dry chemical powder, or appropriate foam are also suitable.
- Not Suitable : -
Protective equipment: Refer to section 8.

Section 6 : Accidental Release Measures

Personal Precautions : Ventilate the area. Use personal protective equipment (Section 8).
Environmental Precautions: Do not discharge into drains. Avoid surface and ground water contamination.





Methods for Cleaning Up/Taking Up : Pick up the product mechanically and store in suitable containers for recovery or disposal.

Section 7 : Handling and Storage

Handling

Special Procedures : None

Safe Handling Procedures : Minimize dust generation. Avoid contact with eyes and skin. Observe all warnings and precautions listed for the product.

Special Advices : None

Storage

Special Requirements : Reseal carefully any opened container and set upright to avoid leakages. Keep the product in the original containers.

Storage Conditions : Keep containers tightly closed in well ventilated and cool place. Protect containers/packaging against physical damage

Section 8 : Exposure Controls / Personal Protection

Exposure Limits

Suggested according to US regulations : 15 mg/m³ (total dust) ; 5 mg/m³ (respirable fraction)

Exposure Controls

Local exhaust ventilation to keep low dust environment.

Personal Protective Equipment

Respiratory : Dust mask required all the time.

Eyes : Safety goggles required all the time.

Hands : Nitrile rubber gloves, over 0.11 mm thickness, > 480 min breakthrough time.

Hygiene Measures

Do not drink, eat or smoke during product manipulation. Keep away from foodstuffs and beverages. Wash hands before breaks and after work.





Section 9 : Physical and Chemical Properties

Physical Form	: Solid, powder or crystalline
Colour	: White (crystalline)
Odour	: Odourless
pH	: 4 – 5 (5% aqueous solution)
Melting Point	: 170 °C (decomposition)
Boiling Point	: not applicable
Flash Point	: not applicable
Flammability	: non flammable
Explosive Properties	: not applicable
Specific Gravity	: 1.5 g/mL
Water Solubility	: 49.5 g/L (20 °C)
Partition Coefficient (log Pow)	: not applicable

Section 10 : Stability and Reactivity

Stability	: Stable under normal storage and temperature conditions.
Conditions to avoid	: Acetic Anhydride, Strong Alkalis
Hazardous Decomposition Products	: By heating, loose of water occurs, with final formation of boron oxide.

Section 11 : Toxicological Information

Acute Data

Oral LD₅₀ (rat) : 2660 mg/Kg
Dermal LD₅₀ (rat) : no data available.
Inhalation LC₅₀ (rabbit): no data available.

Short-term Effects

Inhalation may cause irritation of the respiratory tract. Can cause skin and eye irritation.

Chronic Effects

Adverse effects observed at high dosis on reproductive and developmental toxicity in animals. Non mutagenic according to *in vitro* bacterial tests. Not considered as carcinogenic





Section 12 : Ecological Information

General

Do not discharge into drains and water or public depositories.

Environmental Fate

It releases boron to the environment as boric acid. Boron is naturally occurring and ubiquitous in the environment.

Zooplankton Toxicity

Species : *Daphnia magna*

LC₅₀ 53 mg/L (21 d)

Fish Toxicity

Species: Rainbow Trout (*Oncorhynchus mykiss*)

LC₅₀ 1,100 mg/L (96 h)

Boric Acid is considered not acutely toxic to slightly toxic to aquatic organisms.

Mobility

No data available

Section 13 : Disposal Considerations

Residues : Allocation of a waste code number, according to the European Waste catalogue (EWC), should be carried out in agreement with the regional waste disposal company.

Empty Packaging : Empty containers may be reused after appropriate cleansing. Packaging that can not be cleaned should be disposed in agreement with the regional waste disposal company.

Section 14 : Transport Information

Rail & Road (DOT) – Sea (IMDG Code) – Air (IATA)

Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

Section 15 : Regulatory Information

US Classification

Indication of danger

TSCA

SARA

Calif. Prop 65

Avoid contact and inhalation.

Listed

Not Listed

Not listed





Canada

DSL	Listed
NDSL	Not listed

Labelling according to EC Directives

Hazard Symbol	None
R phrases	None
S phrases	None

Section 16 : Other Information

This MSDS complies with ANSI Standard Z400.1-2004.

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