

CMS provides the information contained herein in good faith but makes no representation as to its completeness, accuracy or reliability. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose.

CMS makes no representations, or warranties, either explicit or implied, of merchantability, fitness for particular purpose with respect to the information set forth herein or to the product to which the information refers. Accordingly, CMS will not be responsible for damages resulting from use of or reliance upon this information.

Manufactured for
Curtin Matheson Scientific, Inc.
 9999 Veterans Memorial Drive
 P.O. Box 1546, Houston, Texas 77251
 We keep the best company.

Material Safety Data Sheet

Emergency Phone Number: 314-982-5000

BORIC ACID

PRODUCT IDENTIFICATION:

Synonyms: ortho-Boric acid; boric acid
 Formula CAS No.: 10043-35-3
 Molecular Weight: 61.83
 Chemical Formula: H₃BO₃
 Hazardous Ingredients: Not applicable.

PRECAUTIONARY MEASURES

WARNING: HARMFUL IF SWALLOWED OR INHALED. MAY CAUSE IRRITATION.
 Avoid breathing dust.
 Keep container closed.
 Use with adequate ventilation.
 Avoid contact with eyes, skin and clothing.
 Wash thoroughly after handling.

EMERGENCY/FIRST AID

If swallowed, induce vomiting immediately by giving two glasses of water, or milk if available and sticking finger down throat. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes. In all cases call a physician.
 SEE SECTION 5.

DOT Hazard Class: Not Regulated

SECTION 1 Physical Data

Appearance: White powder or granules.
 Odor: No apparent odor.
 Solubility: Soluble in water.
 Boiling Point: Decomposes.
 Melting Point: 185°C (365°F)
 Specific Gravity: 1.43
 Vapor Density (Air = 1): No information found.
 Vapor Pressure (mm Hg): 2.6 @ 20°C
 Evaporation Rate: No information found.

SECTION 2 Fire and Explosion Information

Fire:
 Not considered to be a fire hazard.
Explosion:
 A mixture of potassium and boric acid may explode on impact.
Fire Extinguishing Media:
 Use any means suitable for extinguishing surrounding fire.

Special Information:
 In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

SECTION 3 Reactivity Data

Stability:
 Stable under ordinary conditions of use and storage. If moisture is present, boric acid can be corrosive to iron.

Hazardous Decomposition Products:
 Forms boron oxide when heated to decomposition.

Hazardous Polymerization:
 Will not occur.

Incompatibilities:
 Potassium, acetic anhydride, alkalies, carbonates, and hydroxides.

SECTION 4 Leak/Spill Disposal Information

Ventilate area of leak or spill. Clean-up personnel require protective clothing and respiratory protection from dust.
Spills: Pick up and place in a suitable container for reclamation or disposal in a method that does not generate dust.
Disposal: Whatever cannot be saved for reclamation may be disposed in a RCRA approved hazardous waste facility.
 Ensure compliance with local, state and federal regulations.

SECTION 5 Health Hazard Information

A. EXPOSURE / HEALTH EFFECTS

Inhalation:

May cause irritation to the mucous membranes of the respiratory tract. May be absorbed from the mucous membranes, and depending on the amount of exposure could result in the development of nausea, vomiting, diarrhea, drowsiness, coma, and death.

Ingestion:

Symptoms parallel absorption via inhalation. Adult fatal dose reported at 5 to > 30 grams.

Skin Contact:

Not significantly absorbed through the intact skin. Readily absorbed through damaged or burned skin. Symptoms of skin absorption parallel inhalation and ingestion.

Eye Contact:

May cause irritation of the eyes.

Chronic Exposure:

Prolonged absorption causes weight loss, vomiting, diarrhea, skin rash, convulsions and anemia. Kidneys and liver may be particularly susceptible.

Aggravation of Pre-existing Conditions:

Persons with pre-existing skin disorders or eye problems, or impaired liver, kidney or respiratory function may be more susceptible to the effects of the substance.

B. FIRST AID

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion:

If swallowed, induce vomiting immediately by giving two glasses of water, or milk if available and sticking finger down throat. Call a physician immediately. Never give anything by mouth to an unconscious person.

Skin Exposure:

Remove any contaminated clothing. Wash skin with soap or mild detergent and water for at least 15 minutes. Get medical attention if irritation develops or persists.

Eye Exposure:

Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

C. TOXICITY DATA

(RTECS, 1986)

Oral rat LD50: 2660 mg/kg. Mutation references cited. Reproductive effects cited.

SECTION 6 Occupational Control Measures

Airborne Exposure Limits:

None established.

Ventilation System:

A local exhaust system which captures the contaminant at its source is recommended to prevent dispersion of the contaminant into the workroom air.

Personal Respirators: (NIOSH Approved)

For conditions of use where exposure to the dust is apparent, a dust/mist respirator may be worn. For emergencies, a self-contained breathing apparatus may be necessary.

Skin Protection:

Gloves and lab coat, apron or coveralls.

Eye Protection:

Use chemical safety goggles. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.

Use good housekeeping practices to prevent accumulation of dust and follow sound cleaning techniques that will keep airborne particulates at a low level. Wash hands after handling this material. Avoid contact especially when skin is cut or abraded.

SECTION 7 Storage and Special Information

Store in closed containers in a cool, dry area. Carbon steel or aluminum containers are suitable for storage. Stainless steel is needed for moist conditions.

BORIC

Material Safety Data Sheet**Emergency Phone Number: 314-982-5000**

CMS provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose.

CMS makes no representations, or warranties, either expressed or implied, of merchantability, fitness for particular purpose with respect to the information set forth herein or to the product to which the information refers. Accordingly, CMS will not be responsible for damages resulting from use of or reliance upon this information.



Manufactured for
Curtin Matheson Scientific, Inc.
 9999 Veterans Memorial Drive
 P.O. Box 1546, Houston, Texas 77251
 We keep the best company.

Addendum to Material Safety Data SheetREGULATORY STATUS

Hazard Categories for SARA
 Section 311/312 Reporting
 Acute Chronic Fire Pressure Reactive

X X

Product or Components
 of Product:

BORIC ACID (10043-35-3)

SARA EHS Sect. 302 RQ (lbs.)	SARA Section 313 Chemicals Name List	CERCLA Sec.103 RQ (lbs.)	RCRA Sec. 261.33
No	No	No	No

SARA Section 302 EHS RQ: Reportable Quantity of Extremely Hazardous Substance, listed at 40 CFR 355.
 SARA Section 302 EHS TPQ: Threshold Planning Quantity of Extremely Hazardous Substance. An asterisk (*) following a Threshold Planning Quantity signifies that if the material is a solid and has a particle size equal to or larger than 100 micrometers, the Threshold Planning Quantity = 10,000 LBS.
 SARA Section 313 Chemicals: Toxic Substances subject to annual release reporting requirements listed at 40 CFR 372.65.
 CERCLA Sec. 103: Comprehensive Environmental Response, Compensation and Liability Act (Superfund). Releases to air, land or water of these hazardous substances which exceed the Reportable Quantity (RQ) must be reported to the National Response Center, (800-424-8802); Listed at 40 CFR 302.4
 RCRA: Resource Conservation and Reclamation Act. Commercial chemical product wastes designated as acute hazards and toxic under 40 CFR 261.33

