

SECTION 1: Product and Company Identification

Identification of the substance or mixture

Catalog #: 10222, 10222-1
Product Name: Boric Acid
CAS-No.: 10043-35-3

Company Identification

Cepharm Life Sciences Inc.
11830 W Market Place, Suite K
Fulton, MD 20759
USA
Toll Free: 1-800-257-1565
Phone: 410-636-4954

24-hour Emergency Response for Hazardous Materials [or Dangerous Goods] Incident, Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Toll Free: 1-800-424-9300/ +1 703-527-3887 CCN 1010970

For Research Use Only. Not for use in diagnostic procedures.


SECTION 2: Hazards identification

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Reproductive toxicity (Category 2), H361
For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS Label elements, including precautionary statements

Pictogram	
Signal word	Warning
Hazard statement(s) H361	Suspected of damaging fertility or the unborn child.
Precautionary statement(s) P201 P202 P280 P308 + P313 P405 P501	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/ protective clothing/ eye protection/ face protection. IF exposed or concerned: Get medical advice/ attention. Store locked up. Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS – none

SECTION 3: Composition / Information on Ingredients

Substances

Formula: H3BO3
Molecular Weight: 61.83 g/mol
CAS-No.: 10043-35-3
EC-No.: 233-139-2

Hazardous components

Component	Classification	Concentration
Boric Acid	Repr. 2; H361	<= 100%

SECTION 4: First Aid Measures

Description of first aid measures

General advice

Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting Measures

Extinguishing Media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

No data available

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

SECTION 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling & Storage

Precautions for safe handling

Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.
Moisture sensitive.

Specific end use(s)

Apart from the users mentioned in section 1.2, no other specific uses are stipulated.

SECTION 8: Exposure Controls / Personal Protection**Control parameters****Components with workplace control parameters**

Component	CAS-No.	Value	Control parameters	Basis	
Boric Acid	10043-35-3	TWA	2.0000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)	
		Remarks	Upper respiratory Tract Irritation Not classifiable as a human carcinogen varies		
		STEL	6.000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)	
		Remarks	Upper respiratory Tract Irritation Not classifiable as a human carcinogen varies		
		TWA	2.000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)	
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		TWA	2 mg/m3	USA. ACGIH Threshold Limit Values (TLV)	
		Remarks	Upper respiratory Tract Irritation Not classifiable as a human carcinogen varies		
		STEL	6 mg/m3	USA. ACGIH Threshold Limit Values (TLV)	
		Remarks	Upper respiratory Tract Irritation Not classifiable as a human carcinogen varies		

Exposure controls**Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal Protective Equipment**Eye/face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and Chemical Properties**Information on basic physical and chemical properties**

a) Appearance	Form: solid
b) Odor	No data available
c) Odor Threshold	No data available
d) pH	5.1 @ 1.8 g/l @ 25 degrees C (77 degrees F)
e) Melting point/freezing point	160 degrees C(320 degrees F)
f) Initial boiling point and boiling range	300 degrees C (572 degrees F)
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapor pressure	3.5 hPa (2.6 mmHg) @ 20 degrees
l) Vapor density	No data available
m) Relative density	1.440 g/cm3
n) Water solubility	soluble
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

Other safety information

No data available

SECTION 10: Stability & Reactivity**Reactivity**

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

Exposure to moisture.

Incompatible materials

Potassium, Acid anhydrides

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Borane/boron oxides

Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological Information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 2,660 mg/kg
Inhalation: No data available
Dermal: No data available

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

In animal testing, risk of impaired fertility was shown only after administration of very high doses of this substance.

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: ED4550000

Toxicity reported for borates in humans: ingestion or absorption may cause nausea, vomiting, diarrhea, abdominal cramps, and erythematous lesions on the skin and mucous membranes. Other symptoms include: circulatory collapse, tachycardia, cyanosis, delirium, convulsions, and coma. Death has been reported to occur in infants from less than 5 grams and in adults from 5 to 20 grams.

Liver - Irregularities - Based on Human Evidence

Liver - Irregularities - Based on Human Evidence

SECTION 12: Ecological Information

Toxicity

Toxicity to fish

LC50 - *Ptychocheilus lucius* - 279 mg/l - 96 h
LC0 - *Lepomis macrochirus* (Bluegill) - > 1,021 mg/l - 96 h
LC50 - *Daphnia magna* (Water flea) - 53.2 mg/l - 21 d
EC50 - *Daphnia magna* (Water flea) - 133 mg/l - 48 h

Toxicity to daphnia and other aquatic invertebrates

Persistence and degradability

No data available

Bio-accumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects

No data available

SECTION 13: Disposal Considerations**Waste treatment methods****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product

SECTION 14: Transport Information**DOT (US)**

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory Information**SARA 302 Components**

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

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Chronic Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Boric acid	10043-35-3	Revision Date: 2009-07-17
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New Jersey Right To Know Components

Boric acid	10043-35-3	Revision Date: 2009-07-17
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California Prop. 65 Components

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

SECTION 16: Other Information**Full text of H-Statements referred to under sections 2 and 3.**

H361	Suspected of damaging fertility or the unborn child.
Repr.	Reproductive toxicity

HMIS Rating

Health hazard:	1
Chronic Health Hazard:	*
Flammability:	0
Physical Hazard	0

NFPA Rating

Health hazard:	0
Fire Hazard:	0
Reactivity Hazard:	0

Disclaimer:

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It does not represent any guarantee of the properties of the product. Cepham Life Sciences Incorporated and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.