

SAFETY DATA SHEET

according to Regulation (EG) no 1907/2006
Generic EU MSDS – No country specific data
REVISION DATE: 2014-03-19

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name: **Boric acid**
Article number: 16-0005

1.2 Relevant identified uses of the substance or mixture, and uses advised against

Identified uses: Laboratory chemical. Manufacture of substances.

1.3 Details of the supplier of the safety data sheet

Company: Medicago AB
Danmark Berga 13
755 98 Uppsala
Telephone: +46 (0) 18 56 11 80
Facsimile: +46 (0) 18 56 11 88
E-mail address: info@medicago.se

1.4 Emergency telephone number

Emergency telephone number: Giftinformationscentralen 112

2. Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) Nr 1272/2008 (EU-GHS/CLP)
Repr. 1B

2.2 Label elements

Labelling according to Regulation (EC) Nr 1272/2008 (EU-GHS/CLP)



Signal word: Danger

Hazard statement(s)
H360FD: May damage fertility. May damage the unborn child

Precautionary statement(s)
P201: Obtain special instructions before use.
P308 + P313: IF exposed or concerned: Get medical advice/attention.

Complementary hazard information
none

2.3 Other hazards

none

3. Composition/information on ingredients

3.1 Substances

Substance	CAS-no.	EC-no.	Index-no.	Weight %	Classification according to constitution (EG) no 1272/2008 (CLP)
Boric acid	10043-35-3	233-139-2	005-007-00-2	0-100%	Repr. 1B; H360FD

4. First aid measures

4.1 Description of first aid measures

If swallowed	Rinse mouth with water. Consult a physician. Never give anything by mouth to an unconscious person.
If inhaled	If symptoms such as nose or throat irritation are observed, move to 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	Use eye wash fountain or fresh water to cleanse eye. If irritation persists for more than 30 minutes, seek medical attention.
General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.

Note to physicians: For ingestion in excess of 6 grams, maintain adequate kidney function and force fluids.

4.2 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.

4.3 Indication of any immediate medical attention and special treatment needed

no data available

5. Fire fighting measures

5.1 Extinguishing media

Use carbon dioxide, water spray, alcohol-resistant foam or dry chemical. Use extinguishing media that are appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture

Borane/boron oxides

5.3 Advice for fire fighters

If necessary, use self-contained breathing apparatus for fire fighting.

5.4 Further information

no data available

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Avoid creating dust. Avoid breathing vapours, mist or gas.

6.2 Environmental precautions

Avoid contamination of water bodies during clean up and disposal.

6.3 Methods and material for containment and cleaning up

Shovel or sweep up without creating dust and place in suitable, closed containers for disposal in accordance with applicable local regulations.

6.3 Reference to other sections

See section 13.

7. Handling and storage

7.1 Precautions for safe handling

Avoid exposure-obtain special instructions before use. Avoid dust and aerosol formation. See section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool and dry place with adequate ventilation. Keep in a tightly closed container.

7.3 Specific end use(s)

See section 1.2

8. Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters.

8.2 Exposure controls

Appropriate engineering controls

Ensure adequate ventilation. Use local exhaust ventilation to keep airborne concentrations of dust below permissible exposure limits. Handle in accordance with good industrial hygiene and safety practise. Wash hands before breaks and before off-hours.

Personal protective equipment

Eye/face protection

Safety glasses with side shields.

Skin protection

Wear gloves if environment is excessively dusty. Suitable material: nitrile. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Use impervious clothing.

Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Form: powder
Odour	no data available
Odour threshold	no data available
pH	5,1 at 1,8 g/l at 25 °C
Melting point/ freezing point	Melting point/range: 160 °C
Initial boiling point and boiling range	300 °C
Flash point	no data available
Evaporation rate	no data available
Flammability (Solid, gas)	no data available
Upper/lower flammability or explosive limits	no data available
Vapour pressure	3,5 hPa at 20 °C
Vapour density	no data available
Relative density	1,440 g/cm ³
Water solubility	soluble
Partition coefficient: n-octanol/ water	no data available
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	no data available
Explosive properties	no data available
Oxidizing properties	no data available

9.2 Other information

no data available

10. Stability and Reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

Stable under normal conditions of use, storage and transport.

10.3 Possibility of hazardous reactions

no data available

10.3 Conditions to avoid

Exposure to moisture

10.5 Incompatible materials

Potassium, acid anhydrides

10.6 Hazardous decomposition products

no data available. See section 5.

11. Toxicological information

11.1 Information on toxicological effects

11.1.1 Substances

Acute toxicity

LD50 Oral - rat - 2.660 mg/kg

Skin corrosion/irritation

No data available

Serious eye damage/ eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

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.

Reproductive toxicity

Fetotoxicity.

Presumed human reproductive toxicant

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

12. Ecological information

12.1 Toxicity

Toxicity to fish LC50 - Ptychocheilus lucius - 279 mg/l - 96 h
LC0 - Lepomis macrochirus (Bluegill) - > 1.021 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates

LC50 - Daphnia magna (Water flea) - 53,2 mg/l - 21 d
EC50 - Daphnia magna (Water flea) - 133 mg/l - 48 h

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.3 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

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

12.6 Other adverse effects

No data available

13. Disposal considerations

13.1 Waste treatment methods

Dispose via a licensed waste disposal contractor. Tonnage quantities of product are not recommended to be sent to landfills. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Dispose contaminated package as unused product.

14. Transport information

14.1 UN-number

ADR-RID, IMDG, IATA: -

14.2 UN proper shipping name

ADR-RID: Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods

14.3 Transport hazard class(es)

ADR-RID, IMDG, IATA: -

14.4 Packaging group

ADR-RID, IMDG, IATA: -

14.5 Environmental hazards

ADR-RID: no
IMDG, water pollutant: no
IATA: no

14.6 Special precautions for user

no data available

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Authorisations and/or restrictions on use

Boric acid CAS-No.: 10043-35-3
Candidate List of Substances of Very High Concern for Authorisation
Toxic for reproduction (article 57c)
ED/30/2010

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

16. Other information

This information is based on the current state of knowledge.

Text of H-phrases and P-phrases in section 3

Hazard statement(s)

H360FD May damage fertility. May damage the unborn child

Precautionary statement(s)

P201 Obtain special instructions before use.

P308 + P313 IF exposed or concerned: Get medical advice/attention.

Repr. 1B

Reproductive toxicity (category 2)