

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product identifier:

Trade name: Boric Acid
CAS number: 10043-35-3
EC number: 233-139-2

Relevant identified uses of the substance or mixture and uses advised against:

Relevant identified uses: Research and development.
Not suitable for use in: Not suitable for human consumption or veterinary purposes.

Details of the supplier of the safety data sheet:

Company name: Nexchem Ltd
Unit 3 Barshaw Park
Leycroft Road
Leicester
LE4 1ET
Tel: 0116 2311130
24/7 Emergency Tel: 0800 246 1274
Email: sales@nexchem.co.uk

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008:

Classification: Reproductive toxicity, hazard category 1B
Hazard statements: H360

Label elements:

Labelling according to Regulation (EC) No 1272/2008:

Hazard pictograms:



Signal word: Danger

Hazard statements: H360 May damage fertility or the unborn child.

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Precautionary statements:

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P308 + P313 IF exposed or concerned: Get medical advice/attention.
- P405 Store locked up.
- P501 Dispose of contents/container to approved waste disposal facility.

Other hazards: No data available.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Mixtures:

Chemical name	CAS No. EC No. REACH No. Index No.	Concentration	Classification	H-phrase M factor acute M factor chronic	Note
Boric acid	10043-35-3 233-139-2 01-2119486683-25-XXXX 005-007-00-2	100%	Repr. 1B	H360FD - -	Repr. 1B; H360fd: C ≥ 5,5%;

Molecular weight: 61.83

Substance additional information: For the complete text of H- / EUH-statements mentioned in this section, see section 16.

4. FIRST AID MEASURES

Description of first aid measures:

Get medical attention if any discomfort continues. Show this Safety Data Sheet (SDS) to medical personnel.

Inhalation: IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF exposed: Call a POISON CENTER or doctor/physician.

Skin contact: IF ON SKIN: Wash with plenty of soap and water. Continue to rinse for at least 15 minutes. Get medical advice/attention if you feel unwell.

Eye contact: Remove contact lenses if present. Rinse eyes with water. Continue to rinse for at least 15 minutes and seek medical attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Get medical advice/attention if you feel unwell.

Information for doctors: No data available.

Most important symptoms and effects, both acute and delayed:

The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

Inhalation: Single exposure may cause the following adverse effects: Upper respiratory irritation. Difficulty in breathing.

Skin contact: Single exposure may cause the following adverse effects: Severe skin irritation.

Eye contact: Single exposure may cause the following adverse effects: Severe irritation.

Ingestion: Single exposure may cause the following adverse effects: Severe abdominal pain. Nausea, vomiting.

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically. No special treatment requirement.

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5. FIRE-FIGHTING MEASURES

Extinguishing media:

Suitable extinguishing media: In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.

Unsuitable extinguishing media: No specific firefighting procedure given.

Special hazards arising from the substance or mixture:

Specific hazards: None.
Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

Advice for firefighters:

Special protective equipment for fire-fighters:

Evacuate area. Avoid breathing gas, fume, vapours or spray.
Cool containers exposed to heat with water spray and remove container, if no risk is involved.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Avoid inhalation of dust and contact with skin and eyes.
For personal protection, see section 8.

Environmental precautions: Avoid discharge into drains, water courses or onto the ground.

Methods and material for containment and cleaning up:

Collect spillage with shovel, broom or the like and reuse, if possible.
Dispose of large amounts of spillage/waste according to agreement with local authorities.

Reference to other sections: For personal protection, see section 8. For waste disposal, see section 13.

7. HANDLING AND STORAGE

Precautions for safe handling:

Preventive handling precautions: For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities:

Store at room temperature.
Store in a dry place.
Store in a closed container.
Air and moisture sensitive.
Store under inert gas.

Specific end use(s): No specific usage precautions noted.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Exposure limits: No occupational exposure limit assigned.

DNEL/DMEL:

Product/Substance name (CAS No./EC No.)	Type	Exposure	Value	Population	Effects
Boric acid (10043-35-3/233-139-2)	DNEL	Chronic (long term) Inhalation	8.3 mg/m ³	Workers	Systemic
Boric acid (10043-35-3/233-139-2)	DNEL	Chronic (long term) Inhalation	4.15 mg/m ³	Consumers	Systemic

PNEC/PEC:

Product/Substance name (CAS No./EC No.)	Type	Environmental Compartment	Value
Boric acid (10043-35-3/233-139-2)	PNEC	Freshwater	2.02 mg/l
Boric acid (10043-35-3/233-139-2)	PNEC	Marine water	2.02 mg/l
Boric acid (10043-35-3/233-139-2)	PNEC	Intermittent releases	13.7 mg/l
Boric acid (10043-35-3/233-139-2)	PNEC	Sewage treatment plant	10 mg/l
Boric acid (10043-35-3/233-139-2)	PNEC	Soil	5.4 mg/kg

Exposure controls:

Personal Protective Equipment Symbols:



Eye / face protection:

Wear eye protection.

Hand protection:

Wear protective gloves.

Recommended gloves: Nitrile.

Glove Thickness: 0.11mm

Breakthrough time: 8 hours

Wash contaminated skin thoroughly after handling.

Other skin protection:

Wash skin thoroughly after handling.

Respiratory protection:

Provide adequate ventilation.

If ventilation is insufficient, suitable respiratory protection must be provided.

Environmental exposure controls: Avoid discharge into drains.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state:	Solid
Colour:	White.
Odour:	Odourless.
Melting point / freezing point:	No data available
Boiling point or initial boiling point and boiling range:	No data available
Flammability:	No data available
Lower and upper explosion limit:	No data available
Flash point:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH:	5.1 (1.8g/l, @ 25°C)
Kinematic viscosity:	No data available
Solubility:	No data available
Water solubility:	49.2g/l (20°C)
Partition coefficient n-octanol/water:	No data available
Vapour pressure:	No data available
Density and/or relative density:	1.48
Relative vapour density:	No data available
Particle characteristics:	No data available
Other information:	No data available

10. STABILITY AND REACTIVITY

Reactivity:	There are no known reactivity hazards associated with this product.
Chemical stability:	Stable under normal temperature conditions. Stable under the prescribed storage conditions.
Possibility of hazardous reactions:	Violent reaction with: Bases. Strong oxidising agents. Risk of explosion with: Acetic anhydride
Conditions to avoid:	Protect from moisture.
Incompatible materials:	Acid anhydrides. Potassium.
Hazardous decomposition products:	See section 5.

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11. TOXICOLOGICAL INFORMATION

Information on hazard classes as defined in Regulation (EC) No 1272/2008:

Acute toxicity:

Product/Substance name CAS/EC No.	Dose descriptor	Value/Dose	Duration of exposure	Test animals	Remarks
Boric acid (10043-35-3/233-139-2)	Acute Toxicity (Oral LD50):	3,450 mg/kg	-	Rat	(ECHA)
Boric acid (10043-35-3/233-139-2)	Acute Toxicity (Inhalation LC50):	>2.12 mg/l	4 hours	Rat	-
Boric acid (10043-35-3/233-139-2)	Acute Toxicity (Dermal LD50):	>2,000 mg/kg	-	Rabbit	-

Aspiration hazard: Based on available data, the classification criteria are not met.

Information on other hazards:

Endocrine disrupting properties: This product does not contain any known or suspected endocrine disruptors.

12. ECOLOGICAL INFORMATION

Toxicity:

Acute fish toxicity:

Product/Substance name CAS/EC No.	Measurement type	Value/Result	Duration of exposure	Species	Remark
Boric acid (10043-35-3/233-139-2)	EC50	133 mg/l	48 hours	Daphnia magna	-
Boric acid (10043-35-3/233-139-2)	LC50	79.7 mg/l	96 hours	Pimephales promelas (Fat-head Minnow)	(US EPA)

Acute algae toxicity:

Product/Substance name CAS/EC No.	Measurement type	Value/Result	Duration of exposure	Species
Boric acid (10043-35-3/233-139-2)	LC50	52.4 mg/l	74.5 hours	Pseudokirchneriella subcapitata

Persistence and degradability: No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

Results of PBT and vPvB assessment: No data available

Endocrine disrupting properties: No data available

Other adverse effects: No data available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Disposal considerations: Dispose of contents/container in accordance with local regulations.

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14. TRANSPORT INFORMATION

UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user:	Not applicable
Maritime transport in bulk according to IMO instruments:	Not applicable

15. REGULATORY INFORMATION

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

EU regulations:	This SDS is not mandated under REACH Regulation (EC) No 1907/2006 and is provided for information only.
National regulations:	No data available.
Chemical safety assessment:	No chemical safety assessment has been carried out.

Note: The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Phrase meaning: Repr. 1B - Reproductive toxicity, hazard category 1B.
H360 May damage fertility or the unborn child.
H360FD May damage fertility. May damage the unborn child.

Legal disclaimer: The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.