

According to Regulation (EC) No 1907/2006

# Boric Acid

Version number: 1  
Issued: 2023-06-12



## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Trade name**

Boric Acid

**CAS number**

10043-35-3

**EC number**

233-139-2

### 1.2. 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.

### 1.3. Details of the supplier of the safety data sheet

**Supplier**

Molekula Group

Address

Molekula Ltd, Lingfield Way, Darlington,  
DL1 4XX Darlington  
United Kingdom

Telephone

+44 (0) 3302 000 333

Email

info@molekula.com

Web site

www.molekula.com

**Contact person**

Kevin Banks

**Email**

+44 (0) 7769276927

### 1.4. Emergency telephone number

**Poison center/Additional emergency number**

0344 892 0111 - National Poisons Information Service (Newcastle Centre)

According to Regulation (EC) No 1907/2006

# Boric Acid

Version number: 1  
Issued: 2023-06-12



## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

#### Classification

Acute toxicity, oral, hazard category 5  
Reproductive toxicity, hazard category 1B

#### Hazard statements

H303, H360

### 2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

#### Hazard pictograms



#### Signal word

Danger

#### Hazard statements

H303 May be harmful if swallowed.  
H360 May damage fertility or the unborn child.

#### 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 .

### 2.3. Other hazards

No data available

## SECTION 3: Composition/information on ingredients

### 3.2. 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 01-2119486683-25 005-007-00-2	100%	Repr. 1B	H360FD - -	Repr. 1B; H360FD: C ≥ 5,5 %;

According to Regulation (EC) No 1907/2006

# Boric Acid

Version number: 1  
Issued: 2023-06-12



## **Molecular weight**

61.83

## **Substance additional information**

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

## **SECTION 4: First aid measures**

### **4.1. 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.

### **4.2. 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.

### **4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptomatically. No special treatment requirement.

According to Regulation (EC) No 1907/2006

# Boric Acid

Version number: 1  
Issued: 2023-06-12



## SECTION 5: Firefighting measures

### 5.1. 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 fire fighting procedure given.

### 5.2. 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.

### 5.3. 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.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

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

### 6.2. Environmental precautions

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

### 6.3. 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.

### 6.4. Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Preventive handling precautions

For precautions see section 2.2.

### 7.2. 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.

### 7.3. Specific end use(s)

No specific usage precautions noted.

According to Regulation (EC) No 1907/2006

# Boric Acid

Version number: 1  
 Issued: 2023-06-12



## SECTION 8: Exposure controls/personal protection

### 8.1. 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 <sup>3</sup>	Workers	Systemic
boric acid (10043-35-3/233-139-2)	DNEL	Chronic (long term) Inhalation	4.15 mg/m <sup>3</sup>	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

### 8.2. Exposure controls

#### Eye / face protection

Wear eye protection.

#### Hand protection

Wear protective gloves. Nitrile gloves are recommended.  
 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.

According to Regulation (EC) No 1907/2006

# Boric Acid

Version number: 1  
Issued: 2023-06-12



## **Environmental exposure controls**

Avoid discharge into drains.

## **SECTION 9: Physical and chemical properties**

### **9.1. 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

According to Regulation (EC) No 1907/2006

# Boric Acid

Version number: 1  
Issued: 2023-06-12



## Vapour pressure

No data available

## Density and/or relative density

1.48

## Relative vapour density

No data available

## Particle characteristics

No data available

## 9.2. Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

There are no known reactivity hazards associated with this product.

### 10.2. Chemical stability

Stable under normal temperature conditions. Stable under the prescribed storage conditions.

### 10.3. Possibility of hazardous reactions

Violent reaction with: Bases. Strong oxidising agents.

Risk of explosion with: Acetic anhydride

### 10.4. Conditions to avoid

Protect from moisture.

### 10.5. Incompatible materials

Acid anhydrides. Potassium.

### 10.6. Hazardous decomposition products

See section 5.

## SECTION 11: Toxicological information

### 11.1. 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):	3,450mg/kg	-	Rat	(ECHA)

According to Regulation (EC) No 1907/2006

# Boric Acid

Version number: 1  
 Issued: 2023-06-12



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

**Aspiration hazard**

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

**11.2. Information on other hazards**

No data available

**SECTION 12: Ecological information****12.1. Toxicity****Acute fish toxicity**

Product / Sub- stance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Remark
boric acid 10043-35-3 / 233-139-2	EC50	133mg/l	48 hours	Daphnia magna	-
boric acid 10043-35-3 / 233-139-2	LC50 :	79.7mg/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	52.4mg/l	74.5 hours	Pseudokirchneriella subcapitata

**12.2. Persistence and degradability**

No data available

**12.3. Bioaccumulative potential**

No data available



According to Regulation (EC) No 1907/2006

# Boric Acid

Version number: 1  
Issued: 2023-06-12



## 12.4. Mobility in soil

No data available

## 12.5. Results of PBT and vPvB assessment

No data available

## 12.6. Endocrine disrupting properties

No data available

## 12.7. Other adverse effects

No data available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal considerations

Dispose of contents/container in accordance with local regulations.

## SECTION 14: Transport information

### 14.1. UN number

Not applicable

### 14.2. UN proper shipping name

Not applicable

### 14.3. Transport hazard class(es)

Not applicable

### 14.4. Packing group

Not applicable

### 14.5. Environmental hazards

Not applicable

### 14.6. Special precautions for user

Not applicable

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

### 15.1 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

According to Regulation (EC) No 1907/2006

# Boric Acid

Version number: 1  
Issued: 2023-06-12



## 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## SECTION 16: Other information

### Phrase meaning

Acute Tox. 5 - oral - Acute toxicity, oral, hazard category 5

Repr. 1B - Reproductive toxicity, hazard category 1B

H303 May be harmful if swallowed.

H360 May damage fertility or the unborn child.

H360FD May damage fertility. May damage the unborn child