

## Safety Data Sheet BORIC ACID

SDS no. 4LU2XP3P • Version 1.0 • Date of issue: 2024-01-03

### SECTION 1: Identification

#### GHS Product identifier

Product name BORIC ACID

#### Other means of identification

BORIC ACID Granular LR	BL031
BORIC ACID Powder LR	BL032
BORIC ACID Granular AR	BA031

#### Recommended use of the chemical and restrictions on use

Analytical reagent, antibacterial agent, artificial gems, bactericide, borates, carpets, cosmetics, crockery, dyeing cotton and textiles, electric condensers, enamels, eyewash, fireproofing fabrics, fungus control on citrus fruits, glass fibres, hardening steel, hats, heat-resistant (borosilicate) glass, impregnating wicks, insecticide, insecticide, laboratory reagent, leather, manufacture of cements, metallurgy, nickel electroplating baths, ointment, painting, photography, porcelain, preservative, printing, soaps and weatherproofing wood.

#### Supplier's details

Name	ChemSupply Australia Pty Ltd
Address	38-50 Bedford Street 5013 Gillman South Australia Australia

Telephone	08 8440 2000
email	www.chemsupply.com.au

#### Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

### SECTION 2: Hazard identification

#### General hazard statement

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

#### Classification of the substance or mixture

#### GHS classification in accordance with: UN GHS revision 7

- Toxic to reproduction, Cat. 1

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### GHS label elements, including precautionary statements

#### Pictograms



#### Signal word

**Danger**

#### Hazard statement(s)

H360

May damage fertility or the unborn child

#### Precautionary statement(s)

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 an approved waste disposal facility

## SECTION 3: Composition/information on ingredients

### Mixtures

Molecular weight: 61.83

### Components

Component	CAS no.	Concentration
Boric acid (EC no.: 233-139-2; Index no.: 005-007-00-2)	10043-35-3	<= 100 % (weight)
CLASSIFICATIONS: Toxic to reproduction, Cat. 1B. HAZARDS: H360FD - May damage fertility. May damage the unborn child.. [SCLs/M-factors/ATEs]: Repr. 1B; H360FD: C ≥ 5,5 %		

## SECTION 4: First-aid measures

### Description of necessary first-aid measures

#### General advice

Advice to Doctor: Large intravenous doses of isotonic salt solution and plasma have been shown to act as an antidote. Care should be observed in applying ointments and dressings which contain boron over large areas of the body where the skin has been destroyed. It can be absorbed by the body in this way, affecting the central nervous system.

#### If inhaled

If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Consult a physician.

#### In case of skin contact

Immediately remove contaminated clothing and wash affected area with water for at least 15 minutes. Ensure contaminated clothing is washed before re-use. Seek medical advice /attention depending on the severity.

#### In case of eye contact

Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. In all cases of eye contamination it is a sensible precaution to seek medical advice.

If swallowed

Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek immediate medical advice.

**Most important symptoms/effects, 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 immediate medical attention and special treatment needed, if necessary**

For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

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## **SECTION 5: Fire-fighting measures**

**Suitable extinguishing media**

Specific Methods: Use measures suitable for extinguishing surrounding fire.

Water mist, foam, carbon dioxide, dry powder.

**Specific hazards arising from the chemical**

Material does not burn. Fire or heat will produce irritating, poisonous and/or corrosive gases.

**Special protective actions for fire-fighters**

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

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## **SECTION 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

Avoid inhalation, contact with skin, eyes and clothing.

Wear protective clothing specified for normal operations (see Section 8)

**Methods and materials for containment and cleaning up**

Sweep up (avoid generating dust) and remove to a suitable, clearly labelled container for disposal in accordance with local regulations.

Prevent from entering into drains, ditches, rivers or the sea.

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## **SECTION 7: Handling and storage**

**Precautions for safe handling**

Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure. Only use in well-ventilated areas.

**Conditions for safe storage, including any incompatibilities**

Store in a cool, dry place. Store in well ventilated area. Keep containers closed at all times.

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## **SECTION 8: Exposure controls/personal protection**

**Appropriate engineering controls**

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

**Individual protection measures, such as personal protective equipment (PPE)**

**Eye/face protection**

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

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### Skin protection

Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Hand Protection: Ensure hand protection complies with AS 2161, Occupational protective gloves - Selection, use and maintenance.

### Body protection

Footwear: Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.

Body Protection: Wear suitable protective clothing to prevent skin contact. Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

### Respiratory protection

Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

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## SECTION 9: Physical and chemical properties

### Basic physical and chemical properties

Physical state	Solid
Appearance	White granules or powder.
Color	No data available.
Odor	Odourless.
Odor threshold	No data available.
Melting point/freezing point	No data available.
Boiling point or initial boiling point and boiling range	300 °C
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	No data available.
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	185 °C (Melting point).
Oxidizing properties	No data available.
pH	~ 5.1 (1.8g/l, 25 °C)
Kinematic viscosity	No data available.
Solubility	Solubility in Water: 50 g/L (@ 21 °C) Solubility in water is increased by HCl, citric acid, tartaric acid and heat. Solubility in Organic Solvents: Soluble in alcohol, acetone and glycerol.
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	2.7 hPa (20 °C)
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: 1.435 at 15 °C (water = 1)
Relative vapor density	No data available.
Particle characteristics	No data available.

### Supplemental information regarding physical hazard classes

No data available.

**Further safety characteristics (supplemental)**

Other Information: Taste: Faintly bitter.

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**SECTION 10: Stability and reactivity**

**Reactivity**

Stable under normal conditions of storage and handling.

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

Contact with potassium or acetic anhydride may cause explosion.

**Conditions to avoid**

Incompatible materials, excess heat, dust generation, high temperatures.

**Incompatible materials**

Potassium, acetic anhydride, alkali metals, alkali carbonates and hydroxides.

**Hazardous decomposition products**

Boron compounds, boron oxides, borate fumes.

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**SECTION 11: Toxicological information**

**Information on toxicological effects**

**Acute toxicity**

Acute Toxicity - Oral: LD50 (rat): 2660 mg/kg.

Ingestion: May be harmful if swallowed and absorbed. Swallowing can result in nausea, vomiting and diarrhoea followed by reddening, shedding and blistering of skin. Swallowing large quantities (> 0.3 g/kg or > 15 g / 50 kg person) may be fatal. Absorption of large quantities may cause agitation, spasms, tiredness, ataxia (lack of coordination) and drop in body temperature. Other symptoms include: central nervous system depression, characterised by excitement, followed by headache, dizziness, fatigue and coma. May cause circulatory system failure. May cause disturbances to the digestive tract, peripheral nervous system, urinary and endocrine system.

Inhalation: May be harmful if inhaled. Dust causes irritation of the respiratory tract.

**Skin corrosion/irritation**

Acute Toxicity - Dermal: LD50 (rat): >2000 mg/kg.

May be harmful if absorbed through the skin. Causes skin irritation. May be harmful by absorption through open wounds. May cause alteration in behaviour, sense organs, metabolism, the gastrointestinal tract, respiratory tract, depression of the circulation, persistent vomiting and diarrhoea, followed by profound shock and coma. The temperature becomes sub-normal and a scarletina-form rash may cover the entire body.

**Serious eye damage/irritation**

May be harmful if in contact with eyes. Dust causes irritating to eyes.

**Respiratory or skin sensitization**

No data available.

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### Germ cell mutagenicity

No data available.

### Carcinogenicity

No data available.

### Reproductive toxicity

H360 May damage fertility. May damage the unborn child.

### Summary of evaluation of the CMR properties

No data available.

### Specific target organ toxicity (STOT) - single exposure

No data available.

### Specific target organ toxicity (STOT) - repeated exposure

No data available.

### Aspiration hazard

No data available.

### Additional information

Chronic Effects: Ingestion or absorption may cause nausea, diarrhea, abdominal cramps, erythematous lesions on skin and mucous membranes, circulatory collapse, tachycardia, cyanosis, delirium, convulsions and coma. Death has occurred from <5 g in infants and from 5 to 20 g in adults. Prolonged absorption can result in anorexia, weight loss, gastrointestinal irritation, vomiting, mild diarrhoea, skin rash, alopecia, convulsions and anaemia. May cause kidney damage.

Chronic use may cause borism - dry skin, eruptions and gastric disturbances.

Substance should NOT be handled by pregnant staff.

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## SECTION 12: Ecological information

### Toxicity

Acute Toxicity - Daphnia: LC50 (Water flea): 53.2 mg/l/21d.

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## SECTION 13: Disposal considerations

### Disposal methods

### Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

### Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

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## SECTION 14: Transport information

### ADG (Road and Rail)

Not dangerous goods

### IMDG

Not dangerous goods

**IATA**

Not dangerous goods

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## **SECTION 15: Regulatory information**

### **Safety, health and environmental regulations specific for the product in question**

#### **Australia SUSMP**

Poison Schedule: S5

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## **SECTION 16: Other information**

### **Further information/disclaimer**

ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon ChemSupply Australia Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of ChemSupply Australia Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

### **Preparation information**

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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'

Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.

Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.

Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019

Safe Work Australia, Hazardous Chemical Information System (HCIS), [hcis.safeworkaustralia.gov.au](https://hcis.safeworkaustralia.gov.au)

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)