1. Identification

GHS Product Identifier: BORIC ACID

Company Name: CHEM-SUPPLY PTY LTD (ABN 19 008 264 211)

Address: 38 - 50 Bedford Street GILLMAN
SA 5013  Australia

Telephone/Fax Number: Tel: (08) 8440-2000
Fax: (08) 8440-2001

Emergency phone number: CHEMCALL  1800 127 406 (Australia) / +64-4-917-9888 (International)

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.

Other Names:
Name | Product Code
---- | ----------
BORIC ACID Granular LR | BL031
BORIC ACID Powder LR | BL032
BORIC ACID Granular AR | BA031

Other Information:
Chem-Supply 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 Chem-Supply 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 Chem-Supply 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.

2. Hazard Identification

GHS classification of the substance/mixture: Toxic to Reproduction: Category 1B

Signal Word(s): DANGER

Hazard Statement(s): H360 May damage fertility. May damage the unborn child.
Pictogram(s): Health hazard

Precautionary statement – Prevention:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P281 Use personal protective equipment as required.
P308+P313 IF exposed or concerned: Get medical advice/attention.

Precautionary statement – Response:
P501 Dispose of contents/container to an approved waste disposal plant.

3. Composition/information on ingredients

Chemical Characterization: Solid
4. First-aid measures

**Inhalation**
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.

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

**Skin**
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.

**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.

**First Aid Facilities**
Maintain eyewash fountain and safety shower in work area.

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

5. Fire-fighting measures

**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.

**Decomposition Temp.**
185 °C (Melting point).

**Precautions in connection with Fire**
Use suitable protective equipment for surrounding fire.

6. Accidental release measures

**Personal Precautions**
Avoid inhalation, contact with skin, eyes and clothing.

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

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

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

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

8. Exposure controls/personal protection

**Other Exposure Information**
No exposure standards have been established for this product by Safe Work Australia, however, the TWA exposure standard for dusts/mists not otherwise specified is 10 mg/m³. All atmospheric contamination should be kept to as low a level as is workable.

**Appropriate engineering controls**
In industrial situations maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. These methods should be used in preference to personal protective equipment.

**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...
Safety Data Sheet

Boric Acid

Classified as hazardous

Eye Protection
The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate.

Hand Protection
Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336. Use of impervious material conforming to AS/NSZ 2161: Occupational protective gloves - Selection, use and maintenance. Final choice of appropriate glove type will vary according to individual circumstances. This can include methods of handling, and engineering controls as determined by appropriate risk assessments.

Personal Protective Equipment
Personal protective equipment should not solely be relied upon to control risk and should only be used when all other reasonably practicable control measures do not eliminate or sufficiently minimise risk. Guidance in selecting personal protective equipment can be obtained from Australian, Australian/New Zealand or other approved standards.

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

Personal Protective Equipment
Wear 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.

Hand 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.

Hygiene Measures
Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

9. Physical and chemical properties

Form
Solid

Appearance
White granules or powder.

Odour
Odourless.

Decomposition Temperature
185 °C (Melting point).

Boiling Point
300 °C

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.

Specific Gravity
1.435 at 15 °C (water = 1)

pH
~ 5.1 (1.8g/l, 25 °C)

Vapour Pressure
2.7 hPa (20 °C)

Flammability
Non combustible material.

Molecular Weight
61.83

Other Information
Taste: Faintly bitter.

10. Stability and reactivity

Chemical Stability
Stable under normal use conditions.

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.

Possibility of Hazardous Reactions
Contact with potassium or acetic anhydride may cause explosion.

Hazardous Polymerization
Will not occur.

11. Toxicological Information

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

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

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

### Carcinogenicity
No evidence of carcinogenic properties.

### Reproductive Toxicity
H360 May damage fertility. May damage the unborn child.

### 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.

### Mutagenicity
No evidence of mutagenic effects.

### 12. Ecological information

#### Persistence and degradability
Methods for the determination of biodegradability are not applicable to inorganic substances.

#### Bioaccumulative Potential
No bioaccumulation is to be expected \((\log P(o/w) <1.0)\).

#### Information on Ecological Effects
No ecological problems are to be expected when the product is handled and used with due care and attention.

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

### 13. Disposal considerations
Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and disposed of according to relevant local, state and federal government regulations.

### 14. Transport information
Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

### 15. Regulatory information
Listed in the Australian Inventory of Chemical Substances (AICS).

### S5
Poisons Schedule

### Literature References
- Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia.
Safety Data Sheet

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Product Name: BORIC ACID

Classified as hazardous

Safe Work Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004)]'.
Safe Work Australia, 'Hazardous Chemical Information System, 2005'.
Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances (2011)'.

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Contact Person/Point

Paul McCarthy Ph. (08) 8440 2000  DISCLAIMER STATEMENT:

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Empirical Formula & Structural Formula

H₃BO₃

...End Of MSDS...