

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name **ECP Limited**
 Address: 39 Woodside Ave, Northcote, Auckland , New Zealand

Emergency Tel: 0800 243 622 or0800 CHE M CA LL	Tel +64 9 480 4386	FAX +64 9 480 4385
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Product	Boric Acid				Code	1540
CAS#	HSNO#	UN #	DG Class/es	Packing group #	Tracking?	Handlers Certificate?
10043-35-3	NA	NA	Na	Na	No	No

Recommended use: Laboratory Investigations

2: Hazards identification

2.1 Classification of the substance or mixture

Reproductive toxicity (Category 1B),

2.2 Label elements



Pictogram

Signal word Danger

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

Precautionary statement(s)

P201 Obtain special instructions before use.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

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

Supplemental Hazard none

Restricted to professional users. 2.3 Other hazards This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

3: Composition/information on ingredients

3.1 Substances Formula : H3BO3 Molecular weight : 61.83 g/mol CAS-No. : 10043-35-3

4: First aid measures

4.1 Description of first aid measures General advice Consult a physician. Show this safety data sheet to the doctor in attendance. If inhaled If breathed in, move person into 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 Flush eyes with water as a precaution. If swallowed Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

4.3 Indication of any immediate medical attention and special treatment needed No data available

5: Firefighting measures

5.1 Extinguishing media Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture Borane/boron oxides

5.3 Advice for firefighters Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information No data available

6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

6.2 Environmental precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7: Handling and storage

7.1 Precautions for safe handling Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed.

7.2 Conditions for safe storage, including any incompatibilities Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Moisture sensitive.

8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Personal protective equipment Eye/face protection Safety glasses with side-

Skin protection Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection Where risk assessment shows air-purifying respirators are appropriate

Control of environmental exposure Prevent further leakage or spillage if safe to do so.

Do not let product enter drains.

9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance Form: solid

b) Odour No data available

c) Odour Threshold No data available

d) pH 5.1 at 1.8 g/l at 25 °C

e) Melting point/freezing point Melting point/range: 160 °C - dec.

f) Initial boiling point and boiling range 300 °C

g) Flash point No data available

h) Evaporation rate No data available

i) Flammability (solid, gas) No data available

j) Upper/lower flammability or explosive limits No data available

k) Vapour pressure 2.6 mmHg at 20 °C

l) Vapour density No data available

- m) Relative density 1.440 g/cm³
- n) Water solubility soluble
- o) Partition coefficient: n- No data available
- p) Auto-ignition temperature No data available
- q) Decomposition temperature No data available
- r) Viscosity No data available
- s) Explosive properties No data available
- t) Oxidizing properties No data available

10: Stability and reactivity

10.1 Reactivity No data available

10.2 Chemical stability Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Exposure to moisture

10.5 Incompatible materials

Potassium, Acid anhydrides

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Borane/boron oxides

Other decomposition products - No data available

11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity LD₅₀ Oral - Rat - 2,660 mg/kg(Boric acid)

Skin corrosion/irritation

No data available(Boric acid)

Serious eye damage/eye irritation

No data available(Boric acid)

Respiratory or skin sensitisation

No data available(Boric acid)

Germ cell mutagenicity

No data available(Boric acid)

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(Boric acid)

Presumed human reproductive toxicant(Boric acid)

Presumed human reproductive toxicant(Boric acid)

Specific target organ toxicity - single exposure

No data available(Boric acid)

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available(Boric acid)

Additional Information

Toxicity reported for borates in humans: ingestion or absorption may cause anderythematous lesions on the skin and mucous membranes. Other symptoms delirium, convulsions, and coma. Death has been reported to occur in infa grams.(Boric acid)

Liver - Irregularities - Based on Human Evidence(Boric acid)

12: Ecological information

12.1 Toxicity

Toxicity to fish

LC50 - Ptychocheilus lucius - 279 mg/l - 96 h(Boric acid)

LC0 - Lepomis macrochirus (Bluegill) - > 1,021 mg/l - 96 h(Boric acid)

Toxicity to daphnia and other aquatic invertebrates

LC50 - Daphnia magna (Water flea) - 53.2 mg/l - 21 d(Boric acid)

EC50 - Daphnia magna (Water flea) - 133 mg/l - 48 h(Boric acid)

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil No data available(Boric acid)

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

No data available

13: Disposal considerations

13.1 Waste treatment methods

Product Dissolve or mix the material with a combustible solvent and burn in a chem scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14 Transport Information Table

		ADR/RID – European packaging certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
14.1	UN Number	-	-	-
14.2	UN Proper Shipping name	Not dangerous goods	Not dangerous goods	Not dangerous goods
14.3	Transport Hazard Class	-	-	-
14.4	Packaging group	-	-	-
14.5	Environmental Hazards	No	No	No
14.6				

15: Regulatory information

No HSR number – non-hazardous goods

16. Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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