

Safety Data Sheet

1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifiers

Product Name: **Tetrahydropyran-4-boronic acid, pinacol ester**

Product Code: BM836

CAS-No.: 1391850-39-7

1.2 (4,4,5,5-tetramethyl-2-(tetrahydro-2H-pyran-4-yl)-1,3,2-dioxaborolane

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

Identified uses Laboratory chemicals, Manufacture of substances

1.4 Details of the supplier of the safety data sheet

| | |
|----------------------------|--|
| Company | Boron Molecular Pty Ltd |
| Address | 500 Princes Hwy (PO Box 756), Noble Park, Vic, 3174 Australia |
| Telephone Number | +61 3 8558 8000 |
| Emergency Telephone Number | +1 703 527 3887 (Chemtrec) +61 413 777887, +61 412 191161 (Australia) |

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Not a dangerous good according to GHS

2.2 Label elements

Pictogram

Signal word

Hazard statement(s)

Prevention

Response

| | |
|----------------|--|
| P301+P310 | IF SWALLOWED Immediately call Poison Centre or Physician |
| P302+P352 | IF ON SKIN: Immediately flush skin with plenty of soap and water. |
| P305+P338+P351 | IF IN EYES: Immediately flush eyes with plenty of water for at least 20 minutes. |
| P333+P313 | If skin irritation or rash occurs: Get medical advice |
| P337+P313 | If eye irritation persists: Get medical advice |
| P363 | Wash contaminated clothing before reuse |

2.3 Other hazards - none**3 COMPOSITION/INFORMATION ON INGREDIENTS****3.1 Substances**

| | | |
|------------------|--|-----|
| Synonyms | 4,4,5,5-tetramethyl-2-(tetrahydro-2H-pyran-4-yl)-1,3,2-dioxaborolane | |
| Formula | C ₁₁ H ₂₁ BO ₃ | |
| Molecular weight | 212.0930 | amu |
| CAS Number | 1391850-39-7 | |
| Concentration | >97% | |

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.

Ingestion

If swallowed do not induce vomiting. If Victim is conscious, wash out mouth with copious amounts of water. Seek immediate medical assistance.

Eye

Immediately flush eyes with plenty of water for at least 20 minutes while holding eyelids open.

Skin

Immediately flush skin with plenty of water for at least 20 minutes while removing contaminated clothing and shoes. Dispose of contaminated clothing and shoes in compliance with all local, state and federal laws and regulations.

Inhalation

Remove affected person to fresh air. If not breathing, give artificial respiration & seek immediate medical attention. If breathing is difficult, give oxygen.

Chronic

No specific information available on toxicity or the effects of overexposure

SEEK IMMEDIATE MEDICAL ASSISTANCE IN ALL CASES**4.2 Most important symptoms and effects, both acute and delayed**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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

No data available

5 FIRE FIGHTING MEASURES**5.1 Extinguishing media**

Suitable extinguishing media
Foam / Carbon dioxide / Dry powder

5.2 Special hazards arising from the substance or mixture

Not Determined – May include carbon monoxide, carbon dioxide, boron oxides, Nitrous Oxides &/or organic fumes.

5.3 Advise for firefighters

Wear self contained breathing apparatus for fire fighting 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 dust, vapours, mist or gas. Ensure adequate ventilation. For respiratory protection, wear a NIOSH/MSHA approved dust mask or self contained breathing apparatus.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Pickup and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

7 HANDLING AND STORAGE**7.1 Precautions for safe handling**

Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Keep container tightly closed. Do not breathe vapours or mist. Use only with adequate ventilation

7.2 Conditions for safe storage, including any incompatibilities

Handle and store in a DRY closed system, preferably under DRY nitrogen.
Storage conditions:

7.3 Specific end uses

Apart from the uses mentioned in section 1.3, no other specific uses are stipulated.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control parameters**

No data available

8.2 Exposure controls

Personal protective equipment

Eye/face protection

Safety glass with side shields

Skin protection

Handle with chemical resistant gloves. Gloves must be inspected before use.

Body protection

Impervious clothing

Respiratory protection

When inhalation of vapor or mist is possible, wear a NIOSH/MSHA approved dust mask or self-contained breathing apparatus with full face-piece operated in positive-pressure mode.

Engineering controls

Eye wash and safety showers must be available and in good working order.

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| | | |
|----|--|----------------|
| a) | Appearance (Color and Form) | |
| b) | Odour | Not Determined |
| c) | Odour Threshold | Not Determined |
| d) | pH | Not Determined |
| e) | Melting Point | - |
| f) | Boiling Point | Not Determined |
| g) | Flashpoint | Not Determined |
| h) | Evaporation rate | Not Determined |
| i) | Flammability | Not Determined |
| j) | Upper/lower flammability or explosive limits | Not Determined |
| k) | Vapour Pressure | Not Determined |
| l) | Vapour density | Not Determined |
| m) | Relative density | Not Determined |
| n) | Water solubility | Not Determined |
| o) | partition coefficient: | Not Determined |
| p) | Autoignition temperature | Not Determined |
| q) | Decomposition temperature | Not Determined |
| r) | Viscosity | Not Determined |
| s) | Explosive properties | Not Determined |
| t) | Oxidizing properties | Not Determined |

9.2 Other safety information

No data available

10 STABILITY AND REACTIVITY

10.1 Reactivity

Not Determined.

- 10.2 Chemical stability**
Not Determined.
- 10.3 Possibility of hazardous reactions**
Not Determined - Not expected to occur.
- 10.4 Conditions to avoid**
Keep away from heat, sparks, and flame.
- 10.5 Incompatible materials**
Strong Oxidisers
- 10.6 Hazardous decomposition products**
Not Determined – May include carbon monoxide, carbon dioxide, boron oxides, Nitrous Oxides &/or organic fumes.

11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

- | | | |
|----|---|--|
| a) | Acute toxicity | Not Determined. |
| b) | Skin corrosion/irritation | Not Determined. |
| c) | Serious eye damage | Not Determined. |
| d) | Respiratory or skin sensitization | Not Determined. |
| e) | Germ cell mutagenicity | Not Determined. |
| f) | Carcinogenicity | Not Determined. |
| g) | Reproductive toxicity | Not Determined. |
| h) | Specific target organ toxicity – single exposure | Inhalation – May cause respiratory irritation. |
| i) | Specific target organ toxicity – repeated exposure | Not Determined. |
| j) | Aspiration hazard | Not Determined. |

12 ECOLOGICAL INFORMATION

- | | | |
|------|------------------------------------|-----------------|
| 12.1 | Toxicity | Not Determined. |
| 12.2 | Persistence | Not Determined. |
| 12.3 | Bioaccumulative potential | Not Determined. |
| 12.4 | Mobility in soil | Not Determined. |
| 12.5 | Results of PBT and vPvB assessment | Not Determined. |
| 12.6 | Other adverse effects | Not Determined. |

13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state & local environmental regulations.

14 TRANSPORTATION INFORMATION

14.1 UN number

ADR/RID: N/A IMDG: N/A IATA-DGR: N/A

14.2 UN proper shipping name

ADR/RID: Not a dangerous good

IMDG: Not a dangerous good

IATA-DGR: Not a dangerous good

14.3 Transport hazard class(es)

ADR/RID: N/A IMDG: N/A IATA-DGR: N/A

14.4 Packaging group

ADR/RID: N/A IMDG: N/A IATA-DGR: N/A

14.5 Environmental hazard

ADR/RID: No IMDG: No IATA-DGR: No

14.6 Special precautions for user

Not Applicable

15 REGULATORY INFORMATION

Safety, health and environment regulations/legislation specific for the substance or mixture
Not Applicable.

16 OTHER INFORMATION

Date of Preparation 9/03/2018

Revision No. 8

Disclaimer:

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Boron Molecular Pty Ltd 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.

THE END