

Safety Data Sheet

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

1.1 Product Identifiers

Product Name: **4-Biphenylboronic acid, pinacol ester**

Product Code: BM416

CAS-No.: 144432-80-4

1.2 (2-(biphenyl-4-yl)-4,4,5,5-tetramethyl-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	2-(biphenyl-4-yl)-4,4,5,5-tetramethyl-1,3,2-dioxaborolane	
Formula	C ₁₈ H ₂₁ BO ₂	
Molecular weight	280.1720	amu
CAS Number	144432-80-4	
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: Store $\leq 25^{\circ}\text{C}$

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)	White to light brown solid
b)	Odour	Not Determined
c)	Odour Threshold	Not Determined
d)	pH	Not Determined
e)	Melting Point	110-116
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