

Issue Date: 23/04/2019

1	IDENTIFICATION OF THE SUBSTA	NCE/MIXTURE AND OF THE COMPANY/UNDERTAKING			
1.1	Product Identifiers				
	Product Name: (3-Chloro-4-fluorophenyl)boronic acid				
	Product Code: BM1918				
	CAS-No.: 144432-85-9				
1.2					
1.2	'				
1.3	Relevant identified uses of the sub	ostance or mixture and uses advised against			
	Identified uses	Laboratory chemicals, Manufacture of substances			
1.4	Details of the supplier of the safety	y 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				



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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

Formula Molecular weight	C6H5BCIFO2 174.3700	amu
CAS Number Concentration	144432-85-9 ≥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	<b>Extinguishing media</b> Suitable extinguishing media Foam / Carbon dioxide / Dry powder
5.2	<b>Special hazards arising from the substance or mixture</b> 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	<b>Personal precautions, protective equipment and emergency procedures</b> 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	<b>Methods and materials for containment and cleaning up</b> Pickup and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.
6.4	<b>Reference to other sections</b> For disposal see section 13.
7	HANDLING AND STORAGE
7.1	<b>Precautions for safe handling</b> 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	<b>Conditions for safe storage, including any incompatibilities</b> Handle and store in a DRY closed system, preferably under DRY nitrogen. Storage conditions: Store ≤ 25°C
7.3	<b>Specific end uses</b> 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



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#### 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.

Not Determined

#### **Engineering controls**

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

# PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties

- a) Appearance (Color and Form)
- b) Odour

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Odour Threshold Not Determined c) d) pН Not Determined Melting Point e) **Boiling Point** Not Determined f) Flashpoint Not Determined g) Evaporation rate Not Determined h) i) Flammability Not Determined Upper/lower flammability or Not Determined j) explosive limits k) Vapour Pressure Not Determined I) Vapour density Not Determined Relative density Not Determined m) Water solubility Not Determined n) partition coefficient: o) Not Determined Not Determined p) Autoignition temperature Decomposition temperature Not Determined q) r) Viscosity Not Determined Not Determined s) Explosive properties t) Oxidizing properties Not Determined

#### 9.2 Other safety information No data available

## 10 STABILITY AND REACTIVITY

10.1 Reactivity

Not Determined.



<ul> <li>&amp;/or organic fumes.</li> <li>TOXICOLOGICAL INFORMATION</li> <li>Information on toxicological effects</li> <li>a) Acute toxicity</li> <li>b) Skin corrosion/irritation</li> </ul>	oxide, carbon dioxide, boron oxides, Nitrous Oxides				
<ul> <li>Keep away from heat, sparks, and flame.</li> <li>Incompatible materials Strong Oxidisers</li> <li>Hazardous decomposition products Not Determined – May include carbon mono &amp;/or organic fumes.</li> <li>TOXICOLOGICAL INFORMATION</li> <li>Information on toxicological effects         <ul> <li>a) Acute toxicity</li> <li>b) Skin corrosion/irritation</li> </ul> </li> </ul>	Not Determined.				
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b) Skin corrosion/irritation					
<ul> <li>c) Serious eye damage</li> <li>d) Respiratory or skin sensitization</li> <li>e) Germ cell mutagenicity</li> <li>f) Carcinogenicity</li> <li>g) Reproductive toxicity</li> <li>h) Specific target organ toxicity         <ul> <li>– single exposure</li> <li>i) Specific target organ toxicity</li> <li>– repeated exposure</li> <li>j) Aspiration hazard</li> </ul> </li> <li>ECOLOGICAL INFORMATION         <ul> <li>12.1 Toxicity</li> <li>12.2 Persistence</li> <li>12.3 Bioaccumulative potential</li> <li>12.4 Mobility in soil</li> <li>12.5 Results of PBT and vPvB assessment</li> <li>12.6 Other adverse effects</li> </ul> </li> </ul>	Not Determined. Not Determined. Not Determined. Not Determined. Not Determined. Inhalation – May cause respiratory irritation. Not Determined. Not Determined.				
DISPOSAL CONSIDERATIONS Waste treatment methods					
Contact a licensed professional waste dispos	ct a licensed professional waste disposal service to dispose of this material. Burn in a cal incinerator equipped with an afterburner and scrubber. Observe all federal, state &				
TRANSPORTATION INFORMATION         I UN number         ADR/RID:       N/A         IMDG:       N/A					
	<ul> <li>e) Germ cell mutagenicity</li> <li>f) Carcinogenicity</li> <li>g) Reproductive toxicity</li> <li>h) Specific target organ toxicity <ul> <li>single exposure</li> <li>specific target organ toxicity</li> <li>repeated exposure</li> </ul> </li> <li>j) Aspiration hazard</li> </ul> <li>ECOLOGICAL INFORMATION <ul> <li>12.1 Toxicity</li> <li>12.2 Persistence</li> <li>12.3 Bioaccumulative potential</li> <li>12.4 Mobility in soil</li> <li>12.5 Results of PBT and vPvB assessme</li> <li>12.6 Other adverse effects</li> </ul> </li> <li>DISPOSAL CONSIDERATIONS <ul> <li>Waste treatment methods</li> <li>Contact a licensed professional waste disposichemical incinerator equipped with an afterblocal environmental regulations.</li> </ul> </li> <li>TRANSPORTATION INFORMATION UN FORMATION UN number</li>				



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	IMDG: Not dangerous goods						
	IATA-DGR: Not dangerous goods						
14.3	<b>Transport h</b> ADR/RID:	<b>azard class(es)</b> N/A	IMDG:	N/A	IATA-DGR:	N/A	
14.4	Packaging ( ADR/RID:	group N/A	IMDG:	N/A	IATA-DGR:	N/A	
14.5	<b>Environmer</b> ADR/RID:	n <b>tal hazard</b> No	IMDG:	No	IATA-DGR:	No	
14.6	<b>Special pre</b> N/A	cautions for use	r				
15							
16	OTHER INF	ORMATION					
	Date of Prep Revision No.		23 8	8/04/2019			
to us. respec investi Boron	formation abov However, we ct to such inform igations to dete Molecular Pty	make no warranty mation, and we as ermine the suitabil Ltd be liable for a	of merchant ssume no liab lity of the info ny claims, los	ability or any o ility resulting fi rmation for the sses, or damag	he best information curre ther warranty, express o rom its use. Users should ir particular purposes. In ges of any third party or f ges, howsoever arising.	r implied, with d make their own no event shall	
	THE END						