

Safety Data Sheet

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

1.1 Product Identifiers

Product Name **4-cyano-4-(((dodecylthio)carbonothioyl)thio)pentanoic acid**
Manufacturer's Product Code BM1432
CAS-No. 870196-80-8

1.2 Other means of identification

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

1.4 Details of the supplier of the safety data sheet

Company Boron Molecular Pty Ltd
Address 500 Princes Highway (PO Box 756)
Noble Park, Vic, 3174
Australia
Telephone Number +61 3 8558 8000
Emergency Telephone Number +1 703 527 3887 (Chemtrec)
+61 413 777 887, +61 412 191 161 (Australia)
Fax Number +61 3 8558 8004

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Eye irritant - Category 1
Skin sensitizer – Category 1 (sub-category 1A)

2.2 Label elements



Pictogram
Signal word

Danger

Hazard statement(s)

H317 May cause an allergic skin reaction
H318 Causes serious eye damage
H335 May cause respiratory irritation

Prevention

P261 Avoid breathing dust/fume/gas/mist/vapors/spray
P264 Wash skin thoroughly after handling
P280 Wear protective gloves/protective clothes/eye protection/face protection

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

Formula	C19H33NO2S3
Molecular weight	403.6700 amu
CAS Number	870196-80-8
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, sulphur oxides, hydrogen cyanide, carbon disulfide, nitrous oxides &/or organic fumes

5.3 Advice 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. Store at ambient temperature or below.

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 glasses 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)	Pale yellow to tan solid
b)	Odour	Not Determined
c)	Odour Threshold	Not Determined
d)	pH	Not Determined
e)	Melting Point	61-66°C
f)	Boiling Point	Not Determined
g)	Flashpoint	138°C
h)	Evaporation rate	Not Determined
i)	Flammability	Not Determined
j)	Lower flammability limit	2.3% (by vol)
	Upper flammability limit	To be determined
k)	Vapour Pressure	Not Determined
l)	Vapour density	Not Determined
m)	Relative density	Not Determined
n)	Water solubility	39.3mg/L at 20°C
o)	partition coefficient (log p (HPLC)):	7.22
p)	Autoignition temperature	254°C
q)	Minimum Ignition Energy (MIE)	3 < MIE < 10mJ; Es = 8mJ
r)	Minimum Ignition Temperature (MIT)	290°C
s)	Decomposition temperature	>170°C
t)	Volume Resistivity	1.62 x 10 ¹⁶ Ω-cm
u)	Measured decay time	8 sec
v)	Explosive properties	Not Determined
w)	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, sulphur oxides, hydrogen cyanide, carbon disulfide, nitrous oxides &/or organic fumes.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

- | | |
|---|--|
| a) Acute toxicity | LD50 oral, single dose, female rat >2000 mg/kg (OECD Test Guideline 423) |
| b) Skin corrosion/irritation | Non-corrosive & non-irritant to the skin, Episkin™ (SM) model (OECD Test Guidelines 431 & 429) |
| c) Serious eye damage | Eye irritant – Category 1, chicken eyes (OECD Test Guideline 438) |
| d) Respiratory or skin sensitization | Skin sensitization, mouse, 6 days – Category 1A (OECD Test Guideline 429). |
| e) Germ cell mutagenicity | Negative (OECD Test Guideline 471) |
| 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 | Not Determined. |
| j) Aspiration hazard | Not Determined. |

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Not Determined.

12.2 Persistence

Not readily biodegradable.

12.3 Bioaccumulative potential

Not Determined.

12.4 Mobility in soil - Results of PBT and vPvB assessment

Not Determined.

12.5 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 dangerous goods
IMDG: Not dangerous goods
IATA-DGR: Not dangerous goods

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

15.1 Safety, health and environment regulations/legislation specific for the substance or mixture

Not Applicable

16. OTHER INFORMATION

Date of Preparation 01/03/2019
Revision Number 6

THE END