



The Power to Question

SAFETY DATA SHEET

Santa Cruz Biotechnology, Inc.

Revision date 14-Mar-2018

Version 1

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

1.1. Product Identifier

| | |
|------------------------|--|
| Product Name | (4-Morpholinylmethyl)benzotriazole, mixture of Bt1 and Bt2 isomers |
| Product Code | SC-232904 |
| EC No | 226-813-2 |
| CAS No | 5472-71-9 |
| Pure substance/mixture | Substance |
| Contains | (4-Morpholinylmethyl)benzotriazole, mixture of Bt1 and Bt2 isomers |

1.2. Relevant identified uses of the substance or mixture and uses advised against

For research use only. Not intended for diagnostic or therapeutic use.

1.3. Details of the supplier of the safety data sheet

Santa Cruz Biotechnology, Inc.
 10410 Finnell Street
 Dallas, TX 75220
 831.457.3800
 800.457.3801
 scbt@scbt.com

Santa Cruz Biotechnology, Inc.
 Bergheimer Str. 89-2
 69115 Heidelberg, Germany
 +49.6221.4503 0
 +1.800.457.3801
 europe@scbt.com

1.4. Emergency telephone number

Chemtrec
 1.800.424.9300 (Within USA)
 +1.703.527.3887 (Outside USA)

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

| | |
|--|---------------------|
| Skin corrosion/irritation | Category 2 - (H315) |
| Serious eye damage/eye irritation | Category 2 - (H319) |
| Specific target organ toxicity (single exposure) | Category 3 - (H335) |

2.2. Label Elements

Contains (4-Morpholinylmethyl)benzotriazole, mixture of Bt1 and Bt2 isomers

| | |
|--------------------|---------|
| Signal word | Warning |
| Symbols/Pictograms | |



| | |
|-------------------|--|
| Hazard statements | H315 - Causes skin irritation H319 - Causes serious eye irritation H335 - May cause respiratory irritation |
|-------------------|--|

| | |
|--|---|
| Precautionary Statements - EU (§28, 1272/2008) | P264 - Wash face, hands and any exposed skin thoroughly after handling P280 - Wear protective gloves P302 + P352 - IF ON SKIN: Wash with plenty of soap and water P321 - Specific treatment (see Emergency Phone Number on this label) |
|--|---|



P332 + P313 - If skin irritation occurs: Get medical advice/attention
 P362 - Take off contaminated clothing and wash before reuse
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P337 + P313 - If eye irritation persists: Get medical advice/attention
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
 P271 - Use only outdoors or in a well-ventilated area
 P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
 P312 - Call a POISON CENTER or doctor if you feel unwell
 P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
 P405 - Store locked up
 P501 - Dispose of contents/ container to an approved waste disposal plant

2.3. Other Hazards

General Hazards Not applicable

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Molecular Weight 218.26
 Formula C₁₁H₁₄N₄O

3.1 Substances

| Chemical Name | EC No | CAS No | Weight % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|--|---------|-----------|----------|---|
| (4-Morpholinylmethyl)benzotriazole, mixture of Bt1 and Bt2 isomers | Present | 5472-71-9 | 100 | Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335) |

Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice Consult a physician if necessary.
 Inhalation Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.
 Skin Contact Wash skin with soap and water.
 Eye contact Wash with plenty of water.
 Ingestion Never give anything by mouth to an unconscious person. Clean mouth with water.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms No information available.

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

Note to physicians Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES



5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical No information available

Hazardous combustion products Carbon oxides. Nitrogen oxides (NOx).

5.3. Advice for firefighters

Special protective equipment for fire-fighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas.
For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.
Methods for cleaning up Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly.

6.4. Reference to other sections

See Section 12: ECOLOGICAL INFORMATION.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.
General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Derived No Effect Level (DNEL) No information available
Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering Controls Showers
Eyewash stations
Ventilation systems
Eye/face protection Wear safety glasses with side shields (or goggles).
Skin and Body Protection Wear protective gloves and protective clothing.



| | |
|---------------------------------|---|
| Respiratory protection | If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations. |
| Environmental exposure controls | No information available. |

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|----------------|--------------------------|
| Physical State | Solid |
| Appearance | No information available |
| Odor | No information available |

| <u>Property</u> | <u>Values</u> |
|------------------------------|--------------------------|
| pH | No information available |
| Melting point/freezing point | 104 °C |
| Boiling point | No information available |
| Flash point | No information available |
| Density | No information available |
| Evaporation rate | No information available |
| Upper flammability limits | No information available |
| Lower flammability limit | No information available |
| Vapor pressure | No information available |
| Vapor density | No information available |
| Specific gravity | No information available |
| Water solubility | No information available |
| Solubility in other solvents | No information available |
| Partition coefficient | No information available |
| Autoignition temperature | No information available |
| Decomposition temperature | No information available |
| Kinematic viscosity | No information available |
| Explosive properties | No information available |
| Oxidizing properties | No information available |

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

| | |
|------------|----------------|
| Reactivity | Not applicable |
|------------|----------------|

10.2. Chemical stability

| | |
|----------------------------------|--|
| Stability | Stable under recommended storage conditions. |
| Sensitivity to Mechanical Impact | No information available. |
| Sensitivity to Static Discharge | No information available. |

10.3. Possibility of hazardous reactions

| | |
|------------------------------------|-------------------------------|
| Hazardous polymerization | No information available. |
| Possibility of Hazardous Reactions | None under normal processing. |

10.4. Conditions to avoid

| | |
|---------------------|--|
| Conditions to avoid | Extremes of temperature and direct sunlight. |
|---------------------|--|

10.5. Incompatible materials

| | |
|------------------------|--------------------------|
| Incompatible materials | Strong oxidizing agents. |
|------------------------|--------------------------|

10.6. Hazardous decomposition products

| | |
|----------------------------------|---------------------------------------|
| Hazardous Decomposition Products | Carbon oxides. Nitrogen oxides (NOx). |
|----------------------------------|---------------------------------------|

Section 11: TOXICOLOGICAL INFORMATION



11.1. Information on toxicological effects

Acute toxicity

Product Information Product does not present an acute toxicity hazard based on known or supplied information.
 Unknown acute toxicity 100% of the mixture consists of ingredient(s) of unknown toxicity.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity May cause long lasting harmful effects to aquatic life.
 Unknown aquatic toxicity 100% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation No information available.

12.4. Mobility in soil

Mobility No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

12.6. Other adverse effects

Other adverse effects No information available

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues/unused products Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container.

Section 14: TRANSPORT INFORMATION

| | <u>RID / ADR</u> | <u>IMDG</u> | <u>ICAO (air) / IATA</u> |
|---|------------------|---------------|--------------------------|
| | Not regulated | Not regulated | Not regulated |
| 14.1 UN/ID no | - | - | - |
| 14.2 Proper shipping name | - | - | - |
| 14.3 Hazard Class Not regulated | - | - | - |
| Subsidiary hazard class / Labels No information available | - | - | - |
| 14.4 Packing Group Not regulated | - | - | - |
| 14.5 Environmental Hazard | - | - | - |
| 14.6 Special Provisions | - | - | - |



Section 15: REGULATORY INFORMATION

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

National Regulations

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

International Inventories

All of the components in the product are on the following Inventory lists

Canada (DSL/NDSL) Europe (EINECS/ELINCS/NLP)

| Chemical Name | TSCA | DSL | NDSL | EINECS | ELINCS | ENCS | IECSC | KECL | PICCS | AICS |
|--|------|-----|------|--------|--------|------|-------|------|-------|------|
| (4-Morpholinylmethyl)benzotriazole, mixture of Bt1 and Bt2 isomers | - | X | - | X | - | - | - | - | - | - |

X - Listed

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

15.2. Chemical safety assessment

Chemical Safety Report No information available

Section 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

H315 - Causes skin irritation
 H319 - Causes serious eye irritation
 H335 - May cause respiratory irritation
 No information available.

Revision note

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet