



The Power to Question

SAFETY DATA SHEET

Santa Cruz Biotechnology, Inc.

Revision date 02-Apr-2015

Version 1

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

Product identifier

Product Name Ligustilide
Product Code SC-489178

Recommended use of the chemical and restrictions on use

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

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

Emergency telephone number

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

2. HAZARDS IDENTIFICATION

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.122).

Classification

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Label elements

Signal word Not classified
Hazard statements
Symbols/Pictograms Not classified
Precautionary Statements - Prevention Wash hands thoroughly after handling
Precautionary Statements - Response IF exposed or concerned: Get medical advice/attention

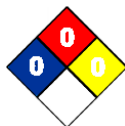
Hazards not otherwise classified (HNOC)

Hazards not otherwise classified (HNOC) Not applicable

Other Information

Unknown acute toxicity 100% of the mixture consists of ingredient(s) of unknown toxicity.

NFPA Health hazards -
Flammability -
Stability -
Physical and chemical properties -



HMIS Health hazards -
Flammability -
Physical hazards -
Personal protection -

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS No 4431-01-0
Molecular Weight 190.24
Formula C₁₂H₁₄O₂

| Chemical Name | CAS No | Weight % | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---------------|--------|----------|-----------|-------------|-----------------|
|---------------|--------|----------|-----------|-------------|-----------------|

| | | | | | |
|-------------|-----------|-----|---|---|---|
| Ligustilide | 4431-01-0 | >98 | - | - | - |
|-------------|-----------|-----|---|---|---|

4. FIRST AID MEASURES

First Aid Measures

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

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

| | |
|--------------------------------|---|
| Suitable Extinguishing Media | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Unsuitable Extinguishing Media | None. |

Specific hazards arising from the chemical

| | |
|--|---------------------------|
| Specific hazards arising from the chemical | No information available. |
| Hazardous combustion products | Carbon oxides. |

Explosion data

| | |
|----------------------------------|---------------------------|
| Sensitivity to Mechanical Impact | No information available. |
| Sensitivity to Static Discharge | No information available. |

Protective equipment and precautions for firefighters

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

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. |

7. HANDLING AND STORAGE

Precautions for safe handling

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

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store at -20 °C.
Incompatible materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

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.
General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State Solid
Appearance No information available
Odor No information available

Property

pH No information available
Melting point/freezing point No information available
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

Values

10. STABILITY AND REACTIVITY

| | |
|------------------------------------|--|
| Reactivity | Not applicable |
| Chemical stability | Stable under recommended storage conditions. |
| Possibility of Hazardous Reactions | None under normal processing. |
| Hazardous polymerization | No information available. |
| Conditions to avoid | Extremes of temperature and direct sunlight. |
| Incompatible materials | Strong oxidizing agents. |
| Hazardous Decomposition Products | Carbon oxides. |

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

| | |
|--------------|--------------------|
| Inhalation | No data available. |
| Eye contact | No data available. |
| Skin Contact | No data available. |
| Ingestion | No data available. |

Information on toxicological effects

| | |
|----------|---------------------------|
| Symptoms | No information available. |
|----------|---------------------------|

Delayed and immediate effects as well as chronic effects from short and long-term exposure

| | |
|------------------|---------------------------|
| Chronic Toxicity | No information available. |
|------------------|---------------------------|

Numerical measures of toxicity - Product Information

| | |
|------------------------|---|
| Unknown acute toxicity | 100% of the mixture consists of ingredient(s) of unknown toxicity |
|------------------------|---|

12. ECOLOGICAL INFORMATION

| | |
|-------------|--|
| Ecotoxicity | May cause long lasting harmful effects to aquatic life |
|-------------|--|

100% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

| | |
|-------------------------------|---------------------------|
| Persistence and degradability | No information available. |
| Bioaccumulation | No information available. |
| Mobility | No information available. |

13. DISPOSAL CONSIDERATIONS

| | |
|------------------------|---|
| Disposal of wastes | Disposal should be in accordance with applicable regional, national and local laws and regulations. |
| Contaminated packaging | Do not reuse container. |

14. TRANSPORT INFORMATION

DOT

| | |
|---------------------------------|--|
| UN/ID no | UN3288 |
| Hazard Class | 6.1 |
| Packing Group | III |
| Proper shipping name | Toxic solid, inorganic, n.o.s. |
| Description | UN3288, Toxic solid, inorganic, n.o.s., 6.1, III |
| Emergency Response Guide Number | 151 |

IMDG

| | |
|----------------------|--|
| UN/ID no | UN3288 |
| Hazard Class | 6.1 |
| Packing Group | III |
| Proper shipping name | Toxic solid, inorganic, n.o.s. |
| Description | UN3288, Toxic solid, inorganic, n.o.s., 6.1, III |
| Special Provisions | 223, 274 |
| EmS-No | F-A, S-A |

IATA

| | |
|----------------------|--|
| UN/ID no | UN3288 |
| Hazard Class | 6.1 |
| Packing Group | III |
| Proper shipping name | Toxic solid, inorganic, n.o.s. |
| Description | UN3288, Toxic solid, inorganic, n.o.s., 6.1, III |

15. REGULATORY INFORMATION**International Inventories**

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

No information available

X - Listed

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

DSL/NDL - 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

US Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

| | |
|-----------------------------------|----|
| Acute health hazard | No |
| Chronic Health Hazard | No |
| Fire hazard | No |
| Sudden release of pressure hazard | No |
| Reactive hazard | No |

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations

16. OTHER INFORMATION

Revision note

No information available

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