SAFETY DATA SHEET
Santa Cruz Biotechnology, Inc.
Revision date 15-Mar-2019
Version 1.1

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

Product identifier
Product Name Oryzalin
Product Code SC-250616

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 considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification
Acute toxicity - Dermal Category 4

Label elements
Signal word Warning
Hazard statements Harmful in contact with skin
Symbols/Pictograms

Precautionary Statements - Prevention
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
Call a POISON CENTER or doctor/physician if you feel unwell
Wash contaminated clothing before reuse
Dispose of contents/container to an approved waste disposal plant

Precautionary Statements - Disposal

Hazards not otherwise classified (HNOC)

Risk of explosion by shock, friction, fire or other sources of ignition

Other Information
Other hazards
Toxic to aquatic life with long lasting effects. Toxic to aquatic life.

NFPA Health hazards 0
Flammability 0
Stability 0
Physical and chemical properties -

HMIS Health hazards 0
Flammability 0
Physical hazards 0
Personal protection -
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>Weight-%</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oryzalin</td>
<td>19044-88-3</td>
<td>&gt;98</td>
<td>= 10000 mg/kg (Rat)</td>
<td>&gt; 2 g/kg (Rabbit) &gt; 2000 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
</tbody>
</table>

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: No information available.

Specific hazards arising from the chemical

Specific hazards arising from the chemical: No information available.


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: Use personal protective equipment as required.
Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not allow into any sewer, on the ground or into any body of water. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. See Section 12 for additional Ecological Information. Should not be released into the environment.

Methods and material for containment and cleaning up
Prevent further leakage or spillage if safe to do so.
Clean contaminated surface thoroughly. 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.

7. HANDLING AND STORAGE

Precautions for safe handling
Use personal protective equipment as required. Ensure adequate ventilation, especially in confined areas. Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. Handle in accordance with good industrial hygiene and safety practice. Corrosive hazard. Wear protective gloves/clothing and eye/face protection.

Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place. Store at room temperature.
None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Appropriate 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
When using do not eat, drink or smoke. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State
Solid
Appearance
No information available
Odor
May be unpleasant
### 10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical stability</td>
<td>Stable under recommended storage conditions.</td>
</tr>
<tr>
<td>Possibility of Hazardous Reactions</td>
<td>None under normal processing.</td>
</tr>
<tr>
<td>Hazardous polymerization</td>
<td>No information available.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>Extremes of temperature and direct sunlight.</td>
</tr>
<tr>
<td>Incompatible materials</td>
<td>Strong oxidizing agents.</td>
</tr>
</tbody>
</table>

### 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**: No information available.
- The following values are calculated based on chapter 3.1 of the GHS document:
  - ATEmix (oral): 10000 mg/kg
  - ATEmix (dermal): 2000 mg/kg

### 12. ECOLOGICAL INFORMATION
Ecotoxicity

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to Microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oryzalin</td>
<td>-</td>
<td>3.26: 48 h Oncorhynchus mykiss mg/L LC50</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

0% 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. Should not be released into the environment.
Contaminated packaging: Do not reuse container.
Other Information: Waste codes should be assigned by the user based on the application for which the product was used.

14. TRANSPORT INFORMATION

DOT
- UN/ID no: UN3077
- Hazard Class: 9
- Packing Group: III
- Proper shipping name: Environmentally hazardous substance, solid, n.o.s.
- Description: UN3077, Environmentally hazardous substance, solid, n.o.s. (Oryzalin), 9, III, Marine pollutant
- Emergency Response Guide Number: 171

IMDG
- UN/ID no: UN3077
- Hazard Class: 9
- Packing Group: III
- Proper shipping name: Environmentally hazardous substance, solid, n.o.s.
- Description: UN3077, Environmentally hazardous substance, solid, n.o.s. (Oryzalin), 9, III, Marine pollutant
- Special Provisions: 274, 335, 966, 967, 969
- EmS-No: F-A, S-F

IATA
- UN/ID no: UN3077
- Hazard Class: 9
- Packing Group: III
- Proper shipping name: Environmentally hazardous substance, solid, n.o.s.
- Description: UN3077, Environmentally hazardous substance, solid, n.o.s. (Oryzalin), 9, III
- ERG Code: 9L

15. REGULATORY INFORMATION

International Inventories
All of the components in the product are on the following Inventory lists
Europe (EINECS/ELINCS/NLP) Australia (AICS)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>ENCS</th>
<th>IECSC</th>
<th>KECL</th>
<th>PICCS</th>
<th>AICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oryzalin</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
</tbody>
</table>

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

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: Yes
- 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 contains the following Proposition 65 chemicals.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>California Proposition 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oryzalin - 19044-88-3</td>
<td>Carcinogen</td>
</tr>
</tbody>
</table>

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oryzalin</td>
<td>X</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>19044-88-3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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