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

<table>
<thead>
<tr>
<th>Product identifier</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product Name</strong></td>
<td>Benzyl butyl phthalate</td>
</tr>
<tr>
<td><strong>Product Code</strong></td>
<td>SC-239317</td>
</tr>
</tbody>
</table>

**Recommended use of the chemical and restrictions on use**
For research use only. Not intended for diagnostic or therapeutic use.

<table>
<thead>
<tr>
<th>Details of the supplier of the safety data sheet</th>
<th>Emergency telephone number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Santa Cruz Biotechnology, Inc.</td>
<td>Chemtrec</td>
</tr>
<tr>
<td>10410 Finnell Street</td>
<td>1.800.424.9300 (Within USA)</td>
</tr>
<tr>
<td>Dallas, TX 75220</td>
<td>+1.703.527.3887 (Outside USA)</td>
</tr>
<tr>
<td>831.457.3800</td>
<td></td>
</tr>
<tr>
<td>800.457.3801</td>
<td></td>
</tr>
<tr>
<td><a href="mailto:scbt@scbt.com">scbt@scbt.com</a></td>
<td></td>
</tr>
</tbody>
</table>

**2. HAZARDS IDENTIFICATION**

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

**Classification**

<table>
<thead>
<tr>
<th>Acute toxicity - Inhalation (Vapors)</th>
<th>Category 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reproductive toxicity</td>
<td>Category 1B</td>
</tr>
</tbody>
</table>

**Label elements**

<table>
<thead>
<tr>
<th>Signal word</th>
<th>Danger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard statements</td>
<td>Toxic if inhaled</td>
</tr>
<tr>
<td>May damage fertility or the unborn child</td>
<td></td>
</tr>
</tbody>
</table>

**Precautionary Statements - Prevention**

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician

**Precautionary Statements - Storage**

Store locked up Store in a well-ventilated place. Keep container tightly closed

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Hazards not otherwise classified (HNOC) Not applicable
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>Benzyl butyl phthalate</td>
<td>85-68-7</td>
<td>&gt;98</td>
<td>= 2330 mg/kg (Rat)</td>
<td>= 6700 mg/kg (Rat)</td>
<td>&gt; 6.7 mg/L (Rat) 4 h</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

**First Aid Measures**

**General advice**
Immediate medical attention is required.

**Eye contact**
Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Call a physician immediately.

**Skin Contact**
Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

**Inhalation**
Immediate medical attention is required. Remove to fresh air. If not breathing, give artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

**Ingestion**
Do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Drink plenty of water.

**Self-protection of the first aider**
Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

**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**
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
Use personal protective equipment as required. Keep people away from and upwind of spill/leak.

Environmental precautions
Environmental precautions
Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. 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. Cover powder spill with plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up
Cover liquid spill with sand, earth or other non-combustible absorbent material. Cover powder spill with plastic sheet or tarp to minimize spreading. Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling
Advice on safe handling
Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities
Storage Conditions
Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Store at room temperature.

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
Tight sealing safety 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. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Wash hands thoroughly after handling. Keep away from food, drink and animal feeding stuffs.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>No information available</td>
</tr>
<tr>
<td>Odor</td>
<td>No information available</td>
</tr>
<tr>
<td>pH</td>
<td>No information available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>-34.99 °C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>370 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>113 °C CC</td>
</tr>
<tr>
<td>Density</td>
<td>1.1 g/mL</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Upper flammability limits</td>
<td>3.2%</td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>0.36%</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>0.2</td>
</tr>
<tr>
<td>Vapor density</td>
<td>10.8</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>No information available</td>
</tr>
<tr>
<td>Water solubility</td>
<td>No information available</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No information available</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>4.91</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>232.2 °C</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>No information available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No information available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No information available</td>
</tr>
</tbody>
</table>

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.
- Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen.
Chemical Name | ACGIH | IARC | NTP | OSHA
--- | --- | --- | --- | ---
Benzyl butyl phthalate 85-68-7 | - | Group 3 | - | -

IARC (International Agency for Research on Cancer) Not classifiable as a human carcinogen

**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) 2330 mg/kg
- ATEmix (dermal) 6700 mg/kg
- ATEmix (inhalation-vapor) 6.7 mg/l

**12. ECOLOGICAL INFORMATION**

Ecotoxicity | May cause long lasting harmful effects to aquatic life

<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>Benzyl butyl phthalate 85-68-7</td>
<td>0.2 - 28.2: 72 h</td>
<td>1.0 - 10.0: 96 h</td>
<td>-</td>
<td>0.9 - 1.1: 48 h</td>
</tr>
<tr>
<td>Pseudokirchneriella subcapitata mg/L EC50 0.02</td>
<td>Oncorhynchus mykiss mg/L LC50 static 0.82: 96 h</td>
<td>Daphnia magna mg/L EC50 Static 0.97: 48 h</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- 0.25: 96 h</td>
<td>Oncorhynchus mykiss mg/L LC50 static 1.0 - 10.0: 96 h</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pseudokirchneriella subcapitata mg/L EC50</td>
<td>96 h Lepomis macrochirus mg/L LC50 semi-static 0.78: 96 h</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>96 h Pimephales promelas mg/L LC50 static 1.39 - 3.88: 96 h</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>96 h Pimephales promelas mg/L LC50 flow-through</td>
<td></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.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzyl butyl phthalate 85-68-7</td>
<td>3.57 - 4.91</td>
</tr>
</tbody>
</table>

**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.
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 | UN3082
Hazard Class | 9
Packing Group
III
Proper shipping name
Environmentally hazardous substance, liquid, n.o.s.
Description
UN3082, Environmentally hazardous substance, liquid, n.o.s. (Benzyl butyl phthalate), 9, III, Marine pollutant
Marine pollutant
This product contains a chemical which is listed as a marine pollutant according to DOT
Emergency Response Guide Number
171

IMDG
UN/ID no
UN3082
Hazard Class
9
Packing Group
III
Proper shipping name
Environmentally hazardous substance, liquid, n.o.s.
Description
UN3082, Environmentally hazardous substance, liquid, n.o.s. (Benzyl butyl phthalate), 9, III, Marine pollutant
Special Provisions
274, 335
EmS-No
F-A, S-F
Marine pollutant
This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO

IATA
UN/ID no
UN3082
Hazard Class
9
Packing Group
III
Proper shipping name
Environmentally hazardous substance, liquid, n.o.s.
Description
UN3082, Environmentally hazardous substance, liquid, n.o.s. (Benzyl butyl phthalate), 9, III

15. REGULATORY INFORMATION

International Inventories
All of the components in the product are on the following Inventory lists
TSCA (United States): Canada (DSL/NDSL) Europe (EINECS/ELINCS/NLP) Australia (AICS) South Korea (KECL): China (IECSC) ENCS (Japan): Philippines (PICCS)

<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>Benzyl butyl phthalate</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</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
No
Chronic Health Hazard
Yes
Fire hazard
No
Sudden release of pressure hazard
No
Reactive hazard
No

CWA (Clean Water Act)
This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Santa Cruz Biotechnology, Inc. www.scbt.com
### Chemical Name

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzyl butyl phthalate 85-68-7</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

### 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>Benzyl butyl phthalate - 85-68-7</td>
<td>Developmental</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>Benzyl butyl phthalate 85-68-7</td>
<td>X</td>
<td>X</td>
<td>X</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**