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

Product identifier
Product Name: Atracurium Besylate
Product Code: SC-210845

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 - Oral
Category 4

Label elements
Signal word: Warning
Hazard statements: Harmful if swallowed
Symbols/Pictograms:

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not applicable

Other Information
Other hazards
Very toxic to aquatic life with long lasting effects. Very toxic to aquatic life.

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

HMIS
Health hazards -
Flammability -
Physical hazards -
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>Atracurium Besylate</td>
<td>64228-81-5</td>
<td>&gt;98</td>
<td>-</td>
<td>-</td>
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</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

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 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 Protect from moisture. 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 powder
Odor No information available

Property Values
pH No information available
Melting point/freezing point No information available
Boiling point No information available
Flash point No information available
Liquid Density No information available
Evaporation rate No information available
Upper flammability limits No information available
10. STABILITY AND REACTIVITY

Reactivity

Chemical stability

Possibility of Hazardous Reactions

Hazardous polymerization

Conditions to avoid

Incompatible materials

Hazardous Decomposition Products

Stable under recommended storage conditions.

None under normal processing.

No information available.

Exposure to air or moisture over prolonged periods.

Strong oxidizing agents.


11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation

Eye contact

Skin Contact

Ingestion

No data available.

No data available.

No data available.

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

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 500 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects

0% of the mixture consists of component(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: 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., 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. (Atracurium Besylate), 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.
- 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)

<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>Atracurium Besylate</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</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 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