



The Power to Question

SAFETY DATA SHEET

Santa Cruz Biotechnology, Inc.

Revision date 02-May-2016

Version 1

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

Product identifier

Product Name Pyridinium tribromide
Product Code SC-253331

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

Skin corrosion/irritation
Serious eye damage/eye irritation

Category 1 Sub-category A
Category 1

Label elements

Signal word
Hazard statements
Symbols/Pictograms

Danger
Causes severe skin burns and eye damage



Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Precautionary Statements - Storage
Precautionary Statements - Disposal

Immediately call a POISON CENTER or doctor/physician
IF SWALLOWED: Rinse mouth. DO NOT induce vomiting
Store locked up
Dispose of contents/container to an approved waste disposal plant



Hazards not otherwise classified (HNOC)

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

| | | | | | | |
|-------------|----------------------------------|---|--|-------------|---------------------|---|
| NFPA | Health hazards | 3 | | HMIS | Health hazards | 3 |
| | Flammability | 0 | | | Flammability | 0 |
| | Stability | 0 | | | Physical hazards | 0 |
| | Physical and chemical properties | - | | | Personal protection | - |

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS No 39416-48-3
 Molecular Weight 319.82
 Formula C₅H₆N•Br₃

| Chemical Name | CAS No | Weight % | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|-----------------------|------------|----------|-----------|-------------|-----------------|
| Pyridinium tribromide | 39416-48-3 | >98 | - | - | - |

4. FIRST AID MEASURES

First Aid Measures

General advice Immediate medical attention is required.

Eye contact Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area.

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

Inhalation Remove to fresh air Call a physician or poison control center immediately If not breathing, give artificial respiration If breathing is difficult, give oxygen

Ingestion Immediate medical attention is required. Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Remove from exposure, lie down. Clean mouth with water and drink afterwards plenty of water. Call a physician or poison control center immediately.

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 Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. 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

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| Specific hazards arising from the chemical | The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes. Thermal decomposition can lead to release of toxic/corrosive gases and vapors. |
| Hazardous combustion products | Carbon oxides. Nitrogen oxides (NOx). Phosgene. |

Explosion data

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

Protective equipment and precautions for firefighters

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| 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. |
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6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

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| Personal precautions | Evacuate personnel to safe areas. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak. |
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Environmental precautions

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| Environmental precautions | Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional Ecological Information. |
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Methods and material for containment and cleaning up

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|-------------------------|---|
| Methods for containment | Prevent further leakage or spillage if safe to do so. |
| Methods for cleaning up | Take up mechanically, placing in appropriate containers for disposal. 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. Avoid creating dust. Dam up. After cleaning, flush away traces with water. |

7. HANDLING AND STORAGE**Precautions for safe handling**

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| Advice on safe handling | Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation, especially in confined areas. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems. Thermal decomposition can lead to release of toxic/corrosive gases and vapors. |
|-------------------------|---|

Conditions for safe storage, including any incompatibilities

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|------------------------|---|
| Storage Conditions | Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers. Store at room temperature. |
| Incompatible materials | Incompatible with strong acids and bases. Incompatible with oxidizing agents. |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters**

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

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| Engineering Controls | Showers Eyewash stations Ventilation systems |
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Individual protection measures, such as personal protective equipment

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| Eye/face protection | Tight sealing safety goggles. Face protection shield. |
| 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. Keep away from food, drink and animal feeding stuffs. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Take off all contaminated clothing and wash it before reuse. Wear suitable gloves and eye/face protection. |

9. PHYSICAL AND CHEMICAL PROPERTIES

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|----------------|--------------------------|
| Physical State | Solid |
| Appearance | powder or crystalline |
| Odor | No information available |

| <u>Property</u> | <u>Values</u> |
|------------------------------|--------------------------|
| pH | No information available |
| Melting point/freezing point | 130 °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 |

10. STABILITY AND REACTIVITY

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|------------------------------------|---|
| 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 | Exposure to air or moisture over prolonged periods. |
| Incompatible materials | Incompatible with strong acids and bases. Incompatible with oxidizing agents. |
| Hazardous Decomposition Products | Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon oxides. Nitrogen oxides (NOx). Phosgene. |



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

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|----------|---------------------------|
| Symptoms | No information available. |
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

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| Chronic Toxicity | Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen. Avoid repeated exposure. Possible risk of irreversible effects. |
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Numerical measures of toxicity - Product Information

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| Unknown acute toxicity | No information available |
|------------------------|--------------------------|

12. ECOLOGICAL INFORMATION

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

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

13. DISPOSAL CONSIDERATIONS

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| 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. |
| US EPA Waste Number | D002 |

14. TRANSPORT INFORMATION

DOT

| | |
|---------------------------------|---|
| UN/ID no | UN3261 |
| Hazard Class | 8 |
| Packing Group | II |
| Proper shipping name | Corrosive solid, acidic, organic, n.o.s. |
| Description | UN3261, Corrosive solid, acidic, organic, n.o.s. (Pyridinium tribromide), 8, II |
| Emergency Response Guide Number | 154 |

**IMDG**

UN/ID no UN3261
 Hazard Class 8
 Packing Group II
 Proper shipping name Corrosive solid, acidic, organic, n.o.s.
 Description UN3261, Corrosive solid, acidic, organic, n.o.s. (Pyridinium tribromide), 8, II
 Special Provisions 274
 EmS-No F-A, S-B

IATA

UN/ID no UN3261
 Hazard Class 8
 Packing Group II
 Proper shipping name Corrosive solid, acidic, organic, n.o.s.
 Description UN3261, Corrosive solid, acidic, organic, n.o.s. (Pyridinium tribromide), 8, II

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) China (IECSC) Philippines (PICCS)

| Chemical Name | TSCA | DSL | NDSL | EINECS | ELINCS | ENCS | IECSC | KECL | PICCS | AICS |
|-----------------------|------|-----|------|--------|--------|------|-------|------|-------|------|
| Pyridinium tribromide | X | - | X | X | - | - | 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

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 Yes
 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

