

# (+)-Tubocurarine chloride pentahydrate: sc-216029



## MATERIAL SAFETY DATA SHEET

The Power to Question

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** (+)-Tubocurarine chloride pentahydrate  
**Product Number:** sc-216029  
**Supplier:** Santa Cruz Biotechnology, Inc.  
2145 Delaware Avenue  
Santa Cruz, CA 95060  
800.457.3801 or 831.457.3800  
**Emergency:** ChemWatch  
Within the US & Canada: 877-715-9305  
Outside the US & Canada: +800 2436 2255 (1-800-CHEMCALL) or call +613 9573 3112

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

**Formula:** C<sub>37</sub>H<sub>42</sub>Cl<sub>2</sub>N<sub>2</sub>O<sub>6</sub> 5H<sub>2</sub>O  
**Molecular Weight:** 771.72

<u>CAS-No.</u>	<u>EC-No.</u>	<u>Index-No.</u>	<u>Concentration</u>
(+)-Tubocurarine chloride pentahydrate 6989-98-6	-	-	-

### 3. HAZARDS IDENTIFICATION

#### Emergency Overview

#### OSHA Hazards

Target Organ Effect. Toxic by ingestion

#### Target Organs

Skeletal muscles. Autonomic nervous system.

#### HMIS Classification

**Health hazard:** 2  
**Chronic Health Hazard:** \*  
**Flammability:** 0  
**Physical hazards:** 0

#### NFPA Rating

**Health hazard:** 2  
**Fire:** 0  
**Reactivity Hazard:** 0

#### Potential Health Effects

**Inhalation:** May be harmful if inhaled. May cause respiratory tract irritation.  
**Skin:** May be harmful if absorbed through skin. May cause skin irritation.  
**Eyes:** May cause eye irritation.  
**Ingestion:** Toxic if swallowed.

### 4. FIRST AID MEASURES

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**5. FIRE-FIGHTING MEASURES****Flammable properties**

Flash point no data available

Ignition temperature no data available

**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.

Evacuate personnel to safe areas.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods for cleaning up**

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

**7. HANDLING AND STORAGE****Handling**

Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Normal measures for preventive fire protection.

**Storage**

Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: 2 - 8 °C.

Store under inert gas. Air sensitive.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Contains no substances with occupational exposure limit values.

**Personal protective equipment****Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**

Handle with gloves.

**Eye protection**

Safety glasses

**Skin and body protection**

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**Hygiene measures**

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Form	solid	pH	no data available
Boiling point	no data available	Flash point	no data available
Ignition temperature	no data available	Water solubility	no data available

Lower explosion limit	no data available	Upper explosion limit	no data available
Melting point	275 - 280 °C (527 - 536 °F)		

## 10. STABILITY AND REACTIVITY

### Storage stability

Stable under recommended storage conditions.

### Materials to avoid

Strong oxidizing agents

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions - Carbon oxides, nitrogen oxides (NOx), hydrogen chloride gas

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

**LD50 Oral - mouse** - 150 mg/kg

**Remarks:** Lungs, Thorax, or Respiration:Dyspnea.

### Irritation and corrosion

no data available

### Sensitization

no data available

### Chronic exposure

**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

### Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### Potential health effects

**Inhalation:** May be harmful if inhaled. May cause respiratory tract irritation.

**Skin:** May be harmful if absorbed through skin. May cause skin irritation.

**Eyes:** May cause eye irritation.

**Ingestion:** Toxic if swallowed.

### Additional Information

**RTECS:** YO5100000

## 12. ECOLOGICAL INFORMATION

### Toxicity

no data available

### Bioaccumulative potential

no data available

### PBT and vPvB assessment

no data available

### Persistence and degradability

no data available

### Mobility in soil

no data available

### Other adverse effects

no data available

## 13. DISPOSAL CONSIDERATIONS

### Product

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging**

Dispose of as unused product.

**14. TRANSPORT INFORMATION****DOT (US)**

UN-Number: 1544                      Class: 6.1                      Packing group: III  
Proper shipping name: Alkaloid salts, solid, n.o.s. ((+)-Tubocurarine chloride pentahydrate)  
Marine pollutant: No  
Poison Inhalation Hazard: No

**IMDG**

UN-Number: 1544                      Class: 6.1                      Packing group: III                      EMS-No: F-A, S-A  
Proper shipping name: ALKALOID SALTS, SOLID, N.O.S. ((+)-Tubocurarine chloride pentahydrate)  
Marine pollutant: No

**IATA**

UN-Number: 1544                      Class: 6.1                      Packing group: III  
Proper shipping name: Alkaloid salts, solid n.o.s. ((+)-Tubocurarine chloride pentahydrate)

**15. REGULATORY INFORMATION****OSHA Hazards**

Target Organ Effect. Toxic by ingestion

**DSL Status**

This product contains the following components that are not on the Canadian DSL nor NDSL lists.  
(+)-Tubocurarine chloride pentahydrate                      CAS-No.: 6989-98-6

**SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards**

Acute Health Hazard. Chronic Health Hazard

**Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right To Know Components**

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**New Jersey Right To Know Components**

(+)-Tubocurarine chloride pentahydrate                      CAS-No.: 6989-98-6

**California Prop. 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**16. OTHER INFORMATION**

*The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.*

6/13/2012