

# Cytosine $\beta$ -D-arabinofuranoside hydrochloride: sc-221454



The Power to Question

## MATERIAL SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Cytosine  $\beta$ -D-arabinofuranoside hydrochloride  
**Product Number:** sc-221454  
**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. HAZARDS IDENTIFICATION

#### Emergency Overview

#### OSHA Hazards

Target Organ Effect, Skin sensitiser, Irritant, Teratogen, Reproductive hazard, Mutagen

#### Target Organs

Bone marrow. Nerves. Immune system.

#### GHS Classification

Acute toxicity, Oral (Category 5)

Eye irritation (Category 2A)

Skin sensitization (Category 1)

Germ cell mutagenicity (Category 2)

Reproductive toxicity (Category 2)

#### GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

#### Hazard statement(s)

H303	May be harmful if swallowed.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H341	Suspected of causing genetic defects.
H361	Suspected of damaging fertility or the unborn child.

#### Precautionary statement(s)

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264	Wash skin thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/ eye protection/ face protection.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P321	Specific treatment (see supplemental first aid instructions on this label).
P333 + P313	If skin irritation or rash occurs: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.  
P363 Wash contaminated clothing before reuse.  
P405 Store locked up.  
P501 Dispose of contents/ container to an approved waste disposal plant.

#### **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. Causes respiratory tract irritation.  
**Skin:** May be harmful if absorbed through skin. Causes skin irritation.  
**Eyes:** Causes eye irritation.  
**Ingestion:** May be harmful if swallowed.

### **3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Synonyms:** Ara-Chydrochloride; Arabinosylcytosinehydrochloride; Arabinocytidinehydrochloride; 1-(β-D-Arabinofuranosyl)cytosinehydrochloride; Cytarabinehydrochloride;  
Cytosine arabinosidehydrochloride

**Formula:** C<sub>9</sub>H<sub>13</sub>N<sub>3</sub>O<sub>5</sub> · HCl

**Molecular Weight:** 279.68

<i>CAS-No.</i>	<i>EC-No.</i>	<i>Index-No.</i>	<i>Concentration</i>
<b>1-β-D-Arabinofuranosylcytosine hydrochloride</b> 69-74-9	200-713-9	-	-

### **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. FIREFIGHTING MEASURES**

#### **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.

#### **Hazardous combustion products**

Hazardous decomposition products formed under fire conditions - Carbon oxides, nitrogen oxides (NO<sub>x</sub>), hydrogen chloride gas

### **6. ACCIDENTAL RELEASE MEASURES**

#### **Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

### **Environmental precautions**

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

### **Methods and materials for containment and cleaning up**

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

## **7. HANDLING AND STORAGE**

### **Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

### **Conditions for safe storage**

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

## **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 N100 (US) or type P3 (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. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### **Eye protection**

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### **Skin and body protection**

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### **Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

Form	crystalline	pH	no data available
Boiling point	no data available	Flash point	no data available
Ignition temperature	no data available	Autoignition temperature	no data available
Lower explosion limit	no data available	Upper explosion limit	no data available
Vapor pressure	no data available	Density	no data available
Water solubility	no data available	Relative vapor density	no data available
Odor	no data available	Odor Threshold	no data available
Melting point/freezing point	197 - 198 °C (387 - 388 °F)	Partition coefficient: n-octanol/water	no data available
Evaporation rate	no data available		

## **10. STABILITY AND REACTIVITY**

### **Chemical stability**

Stable under recommended storage conditions.

### **Possibility of hazardous reactions**

no data available

### **Conditions to avoid**

no data available

### **Materials to avoid**

Oxidizing agents

**Hazardous decomposition products**

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

**Other decomposition products**

no data available

**11. TOXICOLOGICAL INFORMATION****Acute toxicity**

**Oral LD50:** LD50 Oral - rat - > 3,200 mg/kg

**Inhalation LC50:** no data available

**Dermal LD50:** no data available

**Other information on acute toxicity:** no data available

**Skin corrosion/irritation**

no data available

**Serious eye damage/eye irritation**

Eyes - rabbit - Moderate eye irritation - 14 h

**Respiratory or skin sensitization**

May cause allergic skin reaction.

**Germ cell mutagenicity**

In vitro tests showed mutagenic effects

Genotoxicity in vitro - mouse - lymphocyte

DNA inhibition

Genotoxicity in vitro - mouse - leukocyte

Mutation in mammalian somatic cells.

Genotoxicity in vitro - mouse - lymphocyte

Mutation in mammalian somatic cells.

Genotoxicity in vitro - mouse - lymphocyte

Other mutation test systems

Genotoxicity in vivo - mouse - Oral

Cytogenetic analysis

**Carcinogenicity**

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.

**Reproductive toxicity**

Reproductive toxicity - rat - Intraperitoneal

Effects on Newborn: Biochemical and metabolic.

Suspected human reproductive toxicant

**Teratogenicity**

May cause congenital malformation in the fetus.

**Specific target organ toxicity - single exposure (Globally Harmonized System)**

no data available

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**

no data available

**Aspiration hazard**

no data available

**Potential health effects**

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

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

**Eyes:** Causes eye irritation.

**Ingestion:** May be harmful if swallowed.

### Signs and Symptoms of Exposure

Gastrointestinal disturbance, Nausea, Vomiting, Diarrhoea, Fever, Dermatitis, myalgia, bone pain, maculopapular rash, Conjunctivitis.

### Synergistic effects

no data available

### Additional Information

RTECS: Not available

## 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

Offer surplus and non-recyclable solutions to a licensed disposal company. 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)

Not dangerous goods

### IMDG

Not dangerous goods

### IATA

Not dangerous goods

## 15. REGULATORY INFORMATION

### OSHA Hazards

Target Organ Effect, Skin sensitiser, Irritant, Teratogen, Reproductive hazard, Mutagen

### 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

1-β-D-Arabinofuranosylcytosine hydrochloride

CAS-No.: 69-74-9

### New Jersey Right To Know Components

1-β-D-Arabinofuranosylcytosine hydrochloride

CAS-No.: 69-74-9

### 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.*

11/9/2012