

# 1-Cyclopentenecarbonitrile: sc-264798



The Power to Question

## MATERIAL SAFETY DATA SHEET

### 1 Identification of substance:

**Product Name:** 1-Cyclopentenecarbonitrile  
**Catalog Number:** sc-264798  
**Supplier:** Santa Cruz Biotechnology, Inc.  
2145 Delaware Avenue  
Santa Cruz, California 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

#### Classification of the substance or mixture



GHS06 Skull and crossbones

H331 Toxic if inhaled.



GHS07

H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.

#### Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xn; Harmful

R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.



Xi; Irritant

R36/37/38: Irritating to eyes, respiratory system and skin.

#### Label elements

#### Labelling according to EU guidelines:

#### Code letter and hazard designation of product:

Xn Harmful

#### Risk phrases:

20/21/22 Harmful by inhalation, in contact with skin and if swallowed.  
36/37/38 Irritating to eyes, respiratory system and skin.

#### Safety phrases:

9 Keep container in a well-ventilated place.  
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
36/37 Wear suitable protective clothing and gloves.

#### Hazard description:

#### WHMIS classification



**Classification system**  
**HMIS ratings (scale 0-4)**  
**(Hazardous Materials Identification System)**

HEALTH	2
FIRE	1
REACTIVITY	1

Health (acute effects) = 2  
Flammability = 1  
Reactivity = 1

**Other hazards**

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

### 3 Composition/information on ingredients

**Chemical characterization: Substances**

**(CAS#) Description:**

1-Cyclopentenecarbonitrile (CAS# 3047-38-9): 100%

### 4 First aid measures

**Description of first aid measures**

**After inhalation**

Supply fresh air. If required, provide artificial respiration. Keep patient warm.  
Seek immediate medical advice.

**After skin contact**

Immediately wash with water and soap and rinse thoroughly.  
Seek immediate medical advice.

**After eye contact**

Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing** Seek immediate medical advice.

### 5 Firefighting measures

**Extinguishing media**

**Suitable extinguishing agents**

Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Special hazards arising from the substance or mixture**

In case of fire, the following can be released:

Carbon monoxide and carbon dioxide

Nitrogen oxides (NOx)

**Advice for firefighters**

**Protective equipment:**

Wear self-contained respirator.

Wear fully protective impervious suit.

### 6 Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

**Environmental precautions:**

Do not allow material to be released to the environment without proper governmental permits.

**Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

**Reference to other sections**

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

### 7 Handling and storage

**Handling**

**Precautions for safe handling**

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation at the workplace.

**Information about protection against explosions and fires:** Keep ignition sources away.

**Conditions for safe storage, including any incompatibilities**

**Storage**

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Store away from oxidizing agents.

**Further information about storage conditions:**

Keep container tightly sealed. Store at room temperature.

Store in cool, dry conditions in well sealed containers.

## 8 Exposure controls/personal protection

### Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

### Control parameters

Components with limit values that require monitoring at the workplace: Not required.

Additional information: No data

### Exposure controls

#### Personal protective equipment

#### General protective and hygienic measures

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

**Breathing equipment:** Use suitable respirator when high concentrations are present.

#### Protection of hands:

Impervious gloves

Check protective gloves prior to each use for their proper condition.

#### Material of gloves

The selection of suitable gloves not only depends on the material, but also on quality.

Quality will vary from manufacturer to manufacturer.

**Eye protection:** Safety glasses

**Body protection:** Protective work clothing.

## 9 Physical and chemical properties

<b>Information on basic physical and chemical properties</b>	
<b>General Information</b>	
<b>Appearance:</b>	
Form:	Liquid
Formula:	C6H7N
Weight:	93.13
pH-value:	Not determined.
<b>Change in condition</b>	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	72°C (162 °F) (15 mmHg)
Sublimation temperature / start:	Not determined
Flash point:	Not determined
Flammability (solid, gaseous)	Not applicable.
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Auto igniting:	Not determined.
Danger of explosion:	Product does not present an explosion hazard.
<b>Explosion limits:</b>	
Lower:	Not determined
Upper:	Not determined
Vapor pressure:	Not determined
Density:	Not determined
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with Water:	Not miscible or difficult to mix
Segregation coefficient (n-octanol/water):	Not determined.
<b>Viscosity:</b>	
dynamic:	Not determined.
kinematic:	Not determined.
Other information	No further relevant information available.

## 10 Stability and reactivity

### Reactivity

#### Chemical stability

#### Thermal decomposition / conditions to be avoided:

Decomposition will not occur if used and stored according to specifications.

**Possibility of hazardous reactions** No dangerous reactions known

**Incompatible materials:** Oxidizing agents

#### Hazardous decomposition products:

Carbon monoxide and carbon dioxide

Nitrogen oxides

## 11 Toxicological information

### Information on toxicological effects

#### Acute toxicity:

#### Primary irritant effect:

on the skin: Irritant to skin and mucous membranes.

on the eye: Irritating effect.

Sensitization: No sensitizing effects known.

#### Subacute to chronic toxicity:

Nitriles may resemble cyanides in toxicity. Exposure to nitriles may cause increased salivation, flushing of the face, eye and respiratory tract irritation, shallow respiration, nausea, vomiting, weakness, headache and diarrhea. Jaundice, anemia, and leucocytosis has been reported in some cases.

#### Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

Danger through skin absorption.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

## 12 Ecological information

### Toxicity

Acquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

#### Behavior in environmental systems:

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

#### Additional ecological information:

##### General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Do not allow material to be released to the environment without proper governmental permits.

#### Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects No further relevant information available.

## 13 Disposal considerations

### Waste treatment methods

Recommendation Consult state, local or national regulations to ensure proper disposal.

#### Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

## 14 Transport information

### DOT regulations:



Hazard class:	6.1
Identification number:	UN3276
Packing group:	III
Proper shipping name (technical name):	NITRILES, TOXIC, LIQUID, N.O.S. (1-Cyclopentenecarbonitrile)
Label	6.1

### Land transport ADR/RID (cross-border)



ADR/RID class:	6.1 (T1) Toxic substances
Danger code (Kemler):	60
UN-Number:	3276
Packaging group:	III
UN proper shipping name:	3276 NITRILES, TOXIC, LIQUID, N.O.S. (1-Cyclopentenecarbonitrile)

**Maritime transport IMDG:**



**IMDG Class:** 6.1  
**UN Number:** 3276  
**Label** 6.1  
**Packaging group:** III  
**Marine pollutant:** No  
**Proper shipping name:** NITRILES, TOXIC, LIQUID, N.O.S. (1-Cyclopentenecarbonitrile)

**Air transport ICAO-TI and IATA-DGR:**



**ICAO/IATA Class:** 6.1  
**UN/ID Number:** 3276  
**Label** 6.1  
**Packaging group:** III  
**Proper shipping name:** NITRILES, TOXIC, LIQUID, N.O.S. (1-Cyclopentenecarbonitrile)

**UN "Model Regulation":** UN3276, NITRILES, TOXIC, LIQUID, N.O.S., 6.1, III  
**Special precautions for user Warning:** Toxic substances  
**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

## 15 Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Product related hazard informations:**

**Hazard symbols:**

Xn Harmful

**Risk phrases:**

20/21/22 Harmful by inhalation, in contact with skin and if swallowed.  
36/37/38 Irritating to eyes, respiratory system and skin.

**Safety phrases:**

9 Keep container in a well-ventilated place.  
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
36/37 Wear suitable protective clothing and gloves.

**National regulations**

This product is not listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted to research and development only.

Some or all of the components of this product are not listed on the Canadian Domestic Substances List (DSL) or the Canadian Non-Domestic Substances List (NDSL).

**Information about limitation of use:** For use only by technically qualified individuals.

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 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.