



The Power to Question

# SAFETY DATA SHEET

Santa Cruz Biotechnology, Inc.

Revision date 19-Jun-2018

Version 1.1

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

### Product identifier

Product Name 4-Nitrophenol  
Product Code SC-206922

### 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 3  
Acute toxicity - Dermal Category 4  
Acute toxicity - Inhalation (Vapors) Category 3  
Acute toxicity - Inhalation (Dusts/Mists) Category 4  
Specific target organ toxicity (repeated exposure) Category 2

### Label elements

Signal word Danger  
Hazard statements May cause damage to organs through prolonged or repeated exposure

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  
Wear protective gloves/protective clothing/eye protection/face protection  
Use only outdoors or in a well-ventilated area  
Do not breathe dust/fume/gas/mist/vapors/spray  
Get medical advice/attention if you feel unwell  
IF ON SKIN: Wash with plenty of soap and water  
Call a POISON CENTER or doctor/physician if you feel unwell  
Wash contaminated clothing before reuse  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
Call a POISON CENTER or doctor/physician  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
Rinse mouth  
Store locked up Store in a well-ventilated place. Keep container

Precautionary Statements - Response

Precautionary Statements - Storage



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

**Hazards not otherwise classified (HNOC)**

Hazards not otherwise classified (HNOC) Not applicable

**Other Information**

Other hazards Toxic to aquatic life with long lasting effects. Toxic to aquatic life.

<b>NFPA</b>	Health hazards	2		<b>HMIS</b>	Health hazards	2
	Flammability	1			Flammability	1
	Stability	2			Physical hazards	0
	Physical and chemical properties	-			Personal protection	-

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

CAS No 100-02-7  
Molecular Weight 139.11  
Formula C<sub>6</sub>H<sub>5</sub>NO<sub>3</sub>

Chemical name	CAS No.	Weight-%	Oral LD50	Dermal LD50	Inhalation LC50
4-Nitrophenol	100-02-7	>98	= 230 mg/kg ( Rat )	> 5000 mg/kg ( Rabbit )	> 4.7 mg/L ( Rat ) 4 h

**4. FIRST AID MEASURES****First Aid Measures**

General advice	If symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing.
Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician. Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin Contact	Consult a physician if necessary. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Immediate medical attention is not required.
Inhalation	Remove to fresh air Call a physician If breathing is irregular or stopped, administer artificial respiration Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation Artificial respiration and/or oxygen may be necessary Immediate medical attention is not required Move to fresh air in case of accidental inhalation of vapors If symptoms persist, call a physician
Ingestion	Rinse mouth. Drink plenty of water. If symptoms persist, call a physician. Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.
Self-protection of the first aider	Use personal protective equipment as required.

**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**

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.
Hazardous combustion products	Carbon oxides. Nitrogen oxides (NOx).

**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 for firefighters Wear self contained breathing apparatus for fire fighting if necessary.

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

Personal precautions	Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
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**Environmental precautions**

Environmental precautions	Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. 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**

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. Soak up with inert absorbent material. Dam up. Pick up and transfer to properly labeled containers. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water. Take precautionary measures against static discharges.

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

Advice on safe handling	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Use with local exhaust ventilation.
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**Conditions for safe storage, including any incompatibilities**

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 cool, well-ventilated place. Keep in properly labeled containers. Store at room temperature.
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 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. Regular cleaning of equipment, work area and clothing is recommended.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State Solid  
Appearance crystalline powder or chunks  
Odor Odorless

<u>Property</u>	<u>Values</u>
pH	No information available
Melting point/freezing point	110 °C
Boiling point	279 °C
Flash point	169.0 °C CC (closed cup)
Liquid Density	1.48 g/cm <sup>3</sup>
Evaporation rate	No information available
Upper flammability limits	No information available
Lower flammability limit	No information available
Vapor pressure	0.6 mmHg
Vapor density	4.8
Specific gravity	1.48
Water solubility	No information available
Solubility in other solvents	No information available
Partition coefficient	1.91
Autoignition temperature	283 °C
Decomposition temperature	No information available
Kinematic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

## 10. STABILITY AND REACTIVITY

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 Extremes of temperature and direct sunlight.



Incompatible materials Strong oxidizing agents.  
 Hazardous Decomposition Products Carbon oxides. Nitrogen oxides (NOx).

## 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

Symptoms No information available.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Avoid repeated exposure.

### Numerical measures of toxicity - Product Information

Unknown acute toxicity No information available  
 The following values are calculated based on chapter 3.1 of the GHS document  
 ATEmix (oral) 230 mg/kg  
 ATEmix (dermal) 1100 mg/kg  
 ATEmix (inhalation-dust/mist) 1.5 mg/l  
 ATEmix (inhalation-vapor) 4.7 mg/l

## 12. ECOLOGICAL INFORMATION

Ecotoxicity Toxic to aquatic life with long lasting effects

Chemical name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
4-Nitrophenol 100-02-7	2.3 - 7.71: 96 h Pseudokirchneriella subcapitata mg/L EC50 1.95 - 14.6: 72 h Pseudokirchneriella subcapitata mg/L EC50 23.7: 96 h Desmodesmus subspicatus mg/L EC50	3.8: 96 h Oncorhynchus mykiss mg/L LC50 static 7.9: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 14: 96 h Poecilia reticulata mg/L LC50 static 10.4: 96 h Brachydanio rerio mg/L LC50 static 6.6: 96 h Lepomis macrochirus mg/L LC50 static 30.4: 96 h Pimephales promelas mg/L LC50 flow-through	-	3.1 - 7.1: 48 h Daphnia magna mg/L EC50

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

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

Chemical name	Partition coefficient
4-Nitrophenol 100-02-7	1.95

## 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.
Other Information	Waste codes should be assigned by the user based on the application for which the product was used.
US EPA Waste Number	U170

## 14. TRANSPORT INFORMATION

### DOT

UN/ID no	UN1663
Hazard Class	6.1
Packing Group	III
Proper shipping name	Nitrophenols
Reportable Quantity (RQ)	(4-Nitrophenol: RQ (kg)= 45.40)
Description	UN1663, Nitrophenols, 6.1, III
Emergency Response Guide Number	153

### IMDG

UN/ID no	UN1663
Hazard Class	6.1
Packing Group	III
Proper shipping name	Nitrophenols
Description	UN1663, Nitrophenols, 6.1, III, Marine pollutant
Special Provisions	279
EmS-No	F-A, S-A

### IATA

UN/ID no	UN1663
Hazard Class	6.1
Packing Group	III
Proper shipping name	Nitrophenols
Description	UN1663, Nitrophenols, 6.1, III
ERG Code	6L

## 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) Australia (AICS) South Korea (KECL): China (IECSC)  
ENCS (Japan): Philippines (PICCS)

Chemical name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
4-Nitrophenol	X	X	-	X	-	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	Yes

### CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
4-Nitrophenol 100-02-7			X	X

### US State Regulations

#### California Proposition 65

This product does not contain any Proposition 65 chemicals.

#### U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
4-Nitrophenol 100-02-7	X	X	X

## 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**