



The Power to Question

# SAFETY DATA SHEET

Santa Cruz Biotechnology, Inc.

Revision date 12-Dec-2022

Version 7.6

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

### Product identifier

Product Name 1-Fluoro-2,4-dinitrobenzene  
Product Code SC-213329

### 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 4
Acute toxicity - Dermal	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 2
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1
Germ Cell Mutagenicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2

### Label elements

Signal word	Danger
Hazard statements	Harmful if swallowed Causes skin irritation Causes serious eye irritation May cause an allergic skin reaction May cause respiratory irritation May cause damage to organs through prolonged or repeated exposure

Symbols/Pictograms



Precautionary Statements - Prevention

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Use personal protective equipment as required  
Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Do not breathe dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area



Precautionary Statements - Response

Wear respiratory protection  
 Contaminated work clothing should not be allowed out of the workplace  
 Wear protective gloves  
 IF exposed or concerned: Get medical advice/attention  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 If eye irritation persists: Get medical advice/attention  
 IF ON SKIN: Wash with plenty of soap and water  
 Call a POISON CENTER or doctor/physician if you feel unwell  
 Remove/Take off immediately all contaminated clothing  
 Wash contaminated clothing before reuse  
 If skin irritation or rash occurs: Get medical advice/attention  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Immediately call a POISON CENTER or doctor/physician  
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
 Rinse mouth  
 Store locked up Store in a well-ventilated place. Keep container tightly closed  
 Dispose of contents/container to an approved waste disposal plant

Precautionary Statements - Storage

Precautionary Statements - Disposal

**Hazards not otherwise classified (HNOC)**

Hazards not otherwise classified (HNOC) Not applicable

**Other Information**

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

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

CAS No 70-34-8  
 Molecular Weight 186.10  
 Formula C<sub>6</sub>H<sub>3</sub>FN<sub>2</sub>O<sub>4</sub>

Chemical name	CAS No.	Weight-%	Oral LD50	Dermal LD50	Inhalation LC50
1-Fluoro-2,4-dinitrobenzene	70-34-8	>98	-	-	-

**4. FIRST AID MEASURES**

**First Aid Measures**

General advice Consult a physician if necessary. Remove to fresh air.  
 Eye contact Wash with plenty of water.  
 Skin Contact Wash skin with soap and water.  
 Inhalation Remove to fresh air If breathing is difficult, give oxygen If not breathing, give artificial respiration  
 Ingestion Never give anything by mouth to an unconscious person. Clean mouth with water.

**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

Hydrogen fluoride. 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

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

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

Personal precautions

Ensure adequate ventilation, especially in confined areas.

**Environmental precautions**

Environmental precautions

See Section 12 for additional Ecological Information.

**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

Pick up and transfer to properly labeled containers.

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

Advice on safe handling

Handle in accordance with good industrial hygiene and safety practice.

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

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Desiccate at 4 °C.

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
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### Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
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	Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Low-Melting Solid
Appearance	No information available
Odor	No information available

<u>Property</u>	<u>Values</u>
pH	No information available
Melting point/freezing point	24 °C
Boiling point	178 °C
Flash point	164 °C
Liquid Density	1.48 g/mL
Evaporation rate	No information available
Upper flammability limits	No information available
Lower flammability limit	No information available
Vapor pressure	1 mmHg
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

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

Chronic Toxicity	No information available.
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### 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)	500 mg/kg
ATEmix (dermal)	300 mg/kg
ATEmix (inhalation-dust/mist)	0 mg/l

## 12. ECOLOGICAL INFORMATION

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.

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

## 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.

## 14. TRANSPORT INFORMATION

### DOT

UN/ID no	UN2811
Hazard Class	6.1
Packing Group	III
Proper shipping name	Toxic solids, organic, n.o.s.
Description	UN2811, Toxic solids, organic, n.o.s., 6.1, III
Emergency Response Guide Number	154

### IMDG

UN/ID no	UN2811
Hazard Class	6.1
Packing Group	III
Proper shipping name	Toxic solid, organic, n.o.s.



Description UN2811, Toxic solid, organic, n.o.s., 6.1, III  
 Special Provisions 223, 274  
 EmS-No F-A, S-A

**IATA**

UN/ID no UN2811  
 Hazard Class 6.1  
 Packing Group III  
 Proper shipping name Toxic solid, organic, n.o.s.  
 Description UN2811, Toxic solid, organic, n.o.s., 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) China (IECSC) ENCS (Japan): Philippines (PICCS)

Chemical name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
1-Fluoro-2,4-dinitrobenzene	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 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

**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**