



The Power to Question

# SAFETY DATA SHEET

Santa Cruz Biotechnology, Inc.

Revision date 21-Aug-2018

Version 1.5

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

### Product identifier

Product Name Sodium Fluoride  
Product Code SC-24988

### 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 2  
Skin corrosion/irritation Category 2  
Serious eye damage/eye irritation Category 2A  
Carcinogenicity Category 1B

### Label elements

Signal word Danger  
Hazard statements Toxic if swallowed  
Fatal in contact with skin  
Causes skin irritation  
Causes serious eye irritation  
May cause cancer

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 get in eyes, on skin, or on clothing



Precautionary Statements - Response

IF eye 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: Gently wash with plenty of soap and water  
 Immediately call a POISON CENTER or doctor/physician  
 Remove/Take off immediately all contaminated clothing  
 Wash contaminated clothing before reuse  
 If skin irritation occurs: Get medical advice/attention  
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
 Rinse mouth  
 Store locked up  
 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**  
 Other hazards

Harmful to aquatic life with long lasting effects. Harmful to aquatic life.

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



<b>HMIS</b>	Health hazards	2
	Flammability	0
	Physical hazards	0
	Personal protection	-

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

CAS No 7681-49-4  
 Molecular Weight 41.99  
 Formula NaF

Chemical name	CAS No.	Weight-%	Oral LD50	Dermal LD50	Inhalation LC50
Sodium Fluoride	7681-49-4	>98	= 52 mg/kg ( Rat )	= 175 mg/kg ( Rat )	-

**4. FIRST AID MEASURES**

**First Aid Measures**

General advice Immediate medical attention is required. If symptoms persist, call a physician.  
 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. Call a physician immediately. If symptoms persist, call a physician.  
 Skin Contact Immediate medical attention is required. 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.  
 Inhalation Immediate medical attention is required Remove to fresh air If not breathing, give artificial respiration Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation Move to fresh air in case of accidental inhalation of vapors If symptoms persist, call a physician  
 Ingestion Do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Drink plenty of water. Clean mouth with water and drink afterwards plenty of water. Call a physician.



Self-protection of the first aider      Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

### 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.

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

### Environmental precautions

Environmental precautions      Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. 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. Cover powder spill with plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.

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.

**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 .

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium Fluoride 7681-49-4	TWA: 2.5 mg/m <sup>3</sup> F	TWA: 2.5 mg/m <sup>3</sup> F (vacated) TWA: 2.5 mg/m <sup>3</sup>	IDLH: 250 mg/m <sup>3</sup> F TWA: 2.5 mg/m <sup>3</sup> F

NIOSH IDLH *Immediately Dangerous to Life or Health*

**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. Avoid contact with skin, eyes or clothing. Wash hands thoroughly after handling. Keep away from food, drink and animal feeding stuffs.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical State Solid  
Appearance powder  
Odor No information available

**Property**

**Values**

pH The pH of a freshly prepared saturated solution of NaF is 7.4.

Melting point/freezing point 993 °C

Boiling point No information available

Flash point No information available

Liquid Density No information available

Evaporation rate No information available

Upper flammability limits No information available

Lower flammability limit No information available

Vapor pressure 1.4 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.

## 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	Avoid repeated exposure.
Target Organ Effects	Central nervous system, Eyes, Respiratory system, Kidney, Skin, skeletal system.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Sodium Fluoride 7681-49-4	-	Group 2A Group 3	-	X

IARC (International Agency for Research on Cancer) Group 2A - Probably Carcinogenic to Humans

Not classifiable as a human carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor) X - Present

### 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)	52 mg/kg
ATEmix (dermal)	175 mg/kg

## 12. ECOLOGICAL INFORMATION

Ecotoxicity	Harmful to aquatic life with long lasting effects
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Chemical name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea



Sodium Fluoride 7681-49-4	850: 72 h Desmodemus subspicatus mg/L EC50 static 272: 96 h Pseudokirchneriella subcapitata mg/L EC50	180: 96 h Pimephales promelas mg/L LC50 semi-static 38 - 68: 96 h Oncorhynchus mykiss mg/L LC50 static 830: 96 h Lepomis macrochirus mg/L LC50 semi-static 530: 96 h Lepomis macrochirus mg/L LC50	-	98: 48 h Daphnia magna mg/L EC50 Static 338: 48 h Daphnia magna mg/L EC50
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0% 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.  
 Other Information Waste codes should be assigned by the user based on the application for which the product was used.  
 California Hazardous Waste Status This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical name	California Hazardous Waste Status
Sodium Fluoride 7681-49-4	Toxic

### 14. TRANSPORT INFORMATION

**DOT**

UN/ID no UN1690  
 Hazard Class 6.1  
 Packing Group III  
 Proper shipping name Sodium fluoride, solid  
 Reportable Quantity (RQ) (Sodium Fluoride: RQ (kg)= 454.00)  
 Description UN1690, Sodium fluoride, solid, 6.1, III  
 Emergency Response Guide Number 154

**IMDG**

UN/ID no UN1690  
 Hazard Class 6.1  
 Packing Group III  
 Proper shipping name Sodium fluoride, solid  
 Description UN1690, Sodium fluoride, solid, 6.1, III  
 EmS-No F-A, S-A

**IATA**

UN/ID no UN1690  
 Hazard Class 6.1  
 Packing Group III  
 Proper shipping name Sodium fluoride, solid  
 Description UN1690, Sodium fluoride, solid, 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
Sodium Fluoride	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	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive hazard	No

#### **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
Sodium Fluoride 7681-49-4	1000 lb			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
Sodium Fluoride 7681-49-4	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,



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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**