

SAFETY DATA SHEET

Santa Cruz Biotechnology, Inc. Revision date 22-Apr-2019 Version 1

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifier

Product Name Product Code CAS No Synonyms Fluorodifen-d4 SC-496348 15457-05-3 (unlabeled) 4'-Dinitro-4-(trifluoromethyl) Diphenyl Ether-d4; 2-Nitro-1-(4-nitrophenoxy)-4-(trifluoromethyl)benzene-d4; 3-Nitro-4-(p-nitrophenoxy)- α , α -trifluorotoluene-d4; 4-Nitrophenyl 4-(trifluoromethyl)-2-nitrophenyl Ether-d4; 4'-Trifluoromethyl-2',4-dinitrodiphenyl Ether-d4; C 6989-d4; Fluorodiphen-d4; NSC 58415-d4; Preforan-d4; p-Nitrophenyl 2-Nitro-4-(trifluoromethyl)phenyl Ether-d4; p-Nitrophenyl α , α -Trifluoro-2-nitro-p-tolyl Ether-d4; p-Nitrophenyl α , α -Trifluoro-o-nitro-p-tolyl Ether-d4 Substance

Pure substance/mixture Contains Fluorodifen-d4

1.2. Relevant identified uses of the substance or mixture and uses advised against For research use only. Not intended for diagnostic or therapeutic use.

1.3. 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 **1.4. Emergency telephone number** Chemtrec 1.800.424.9300 (Within USA) +1.703.527.3887 (Outside USA) Santa Cruz Biotechnology, Inc. Bergheimer Str. 89-2 69115 Heidelberg, Germany +49.6221.4503 0 +1.800.457.3801 europe@scbt.com

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008 Acute toxicity - Inhalation (Dusts/Mists) Serious eye damage/eye irritation Acute aquatic toxicity

2.2. Label Elements

Contains Fluorodifen-d4 Signal word

Symbols/Pictograms

Category 4 - (H332) Category 2 - (H319) Category 1 - (H400)

Warning





Hazard statements	H319 - Causes serious eye irritation H332 - Harmful if inhaled H400 - Very toxic to aquatic life
Precautionary Statements - EU (§28, 1272/2008)	 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray P271 - Use only outdoors or in a well-ventilated area P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing P312 - Call a POISON CENTER or doctor if you feel unwell P264 - Wash face, hands and any exposed skin thoroughly after handling P280 - Wear protective gloves/protective clothing/eye protection/face protection P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P337 + P313 - If eye irritation persists: Get medical advice/attention P273 - Avoid release to the environment P391 - Collect spillage P501 - Dispose of contents/ container to an approved waste disposal plant

2.3. Other Hazards General Hazards

Not applicable

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Molecular Weight	332.22
Formula	C13H3D4F3N2O5

3.1 Substances

Chemical name	EC No	CAS No.	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Fluorodifen-d4	Present	15457-05-3	100	Acute Tox. 4 (H332)
				Eye Irrit. 2 (H319)
				Aquatic Acute 1 (H400)

Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

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

4.2. Most important symptoms and effects, both acute and delayed

Symptoms No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.



Section 5: FIRE FIGHTING MEASURES

5.1.	Ext	ing	uish	ing	media	а
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Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	No information available
Hazardous combustion products	Carbon oxides. Hydrogen fluoride. Nitrogen oxides (NOx).

5.3. Advice for firefighters

Special protective equipment for fire-fighters

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

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures Personal precautions Ensure adequate ventilation, especially in confined areas. For emergency responders Use personal protection recommended in Section 8. 6.2. Environmental precautions Environmental precautions See Section 12 for additional Ecological Information. 6.3. 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
meanede ter electrining op	to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate
	containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly.

6.4. Reference to other sections

See Section 12: ECOLOGICAL INFORMATION.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling				
Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice.			
General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice.			
7.2. Conditions for safe storage Storage Conditions	, including any incompatibilities Keep container tightly closed in a dry and well-ventilated place.			

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Showers Eyewash stations

8.1. Control parameters Exposure Limits Derived No Effect Level (DNEL) Predicted No Effect Concentration (PNEC)	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies. No information available No information available.
8.2. Exposure controls	

Engineering Controls



	Ventilation systems
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.
Environmental exposure controls	No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State Appearance Odor

Property

pH Melting point/freezing point Boiling point Flash point Liquid Density Evaporation rate Upper flammability limits Lower flammability limit Vapor pressure Vapor density Specific gravity Water solubility Solubility in other solvents Partition coefficient Autoignition temperature Decomposition temperature Kinematic viscosity Explosive properties Oxidizing properties

Solid No information available No information available

Values

No information available 92 °C No information available No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity Reactivity	Not applicable
10.2. Chemical stability Stability Sensitivity to Mechanical Impact Sensitivity to Static Discharge	Stable under recommended storage conditions. No information available. No information available.
10.3. Possibility of hazardous re Hazardous polymerization Possibility of Hazardous Reactions	actions No information available. None under normal processing.
10.4. Conditions to avoid Conditions to avoid	Extremes of temperature and direct sunlight.
10.5. Incompatible materials Incompatible materials	Strong oxidizing agents.

10.6. Hazardous decomposition products

Hazardous Decomposition Products Carbon oxides. Hydrogen fluoride. Nitrogen oxides (NOx).



Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity Product Information

Unknown acute toxicity

Product does not present an acute toxicity hazard based on known or supplied information. 0% of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) ATEmix (inhalation-dust/mist) 9,000.00 mg/kg 1.50 mg/l

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Fluorodifen-d4	= 9 g/kg (Rat)	> 10 g/kg (Rabbit)> 3 g/kg (> 990 mg/m³ (Rat)6 h
		Rat)	

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity Ecotoxicity Unknown aquatic toxicity	May cause long lasting harmful effects to aquatic life. 0% of the mixture consists of components(s) of unknown hazards to the aquatic environment.				
12.2. Persistence and degradab Persistence and degradability	ility No information available.				
12.3. Bioaccumulative potential Bioaccumulation	No information available.				
12.4. Mobility in soil Mobility	No information available.				
12.5. Results of PBT and vPvB assessment PBT and vPvB assessment No information available.					
12.6. Other adverse effects Other adverse effects	No information available				

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods	Disposal should be in accordance with applicable regional, national and local laws and
waste from residues/unused products	
	regulations.
Contaminated packaging	Do not reuse container.

Section 14: TRANSPORT INFORMATION

	RID / ADR	IMDG	ICAO (air) / IATA
14.1 UN/ID no	UN3077	UN3077	UN3077



14.2 Proper shipping name	Environmentally hazardous substance, solid, n.o.s.	Environmentally hazardous substance, solid, n.o.s.	Environmentally hazardous substance, solid, n.o.s.		
14.3 Hazard Class	9	9	9		
Subsidiary hazard class / Labels 14.4 Packing Group	-	-	-		
14.5 14.5 Environmental Hazard	Yes	-	Yes		
14.6 14.6 Special Provisions	274, 335, 375, 601 Classification code M7	274, 335, 966, 967, 969 EmS-No F-A, S-F	A158, A179, A97, A197 ERG Code 9L		

Section 15: REGULATORY INFORMATION

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

National Regulations

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

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)

Chemical name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Fluorodifen-d4	Х	-	Х	Х	-	-	-	-	-	-

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

15.2. Chemical safety assessment

Chemical Safety Report No information available

Section 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3	H319 - Causes serious eye irritation H332 - Harmful if inhaled		
	H400 - Very toxic to aquatic life		
Revision note	No information available.		

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

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