

Product name Phosphatase Inhibitor Cocktail (100X)**(M)SDS Number** 5870**Version** 1**Issuing Date:** 2024-10-28

1. Identification

Product identifier

Product name Phosphatase Inhibitor Cocktail (100X)

Other means of identification

(M)SDS Number 5870

Contains

Chemical name	English chemical name	CAS No
sodium fluoride	sodium fluoride	7681-49-4
trisodium tetraoxovanadate	trisodium tetraoxovanadate	13721-39-6

Details of the supplier of the safety data sheet

Manufacturer

Cell Signaling Technology, Inc.
3 Trask Lane
Danvers, MA 01923
United States
TEL: +1 978 867 2300
FAX: +1 978 867 2400

Importer

Cell Signaling Technology, Inc.
Building 7
A-SUN Science & Technology Park
399 Shengxia Road
Pudong Shanghai 201210
China
TEL: 4006-473287
FAX: (86) 21-5835-6116

Supplier

No information available

E-mail address support@cellsignal.com

Emergency telephone number

Emergency telephone 400 120 4937

Recommended use of the chemical and restrictions on use

Identified uses For Research Use Only. Not for Use in Diagnostic Procedures.**Restrictions on use** No information available

2. Hazard(s) identification

Emergency Overview

Harmful if swallowed.

Appearance Clear / Colorless**Physical state** Liquid**Odor** Odorless

Classification of the substance or mixture

Acute toxicity - Oral	Category 4
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Label elements**Signal Word**

Warning

Hazard Statements

Harmful if swallowed

Prevention

Wash face, hands and any exposed skin thoroughly after handling.
Do not eat, drink or smoke when using this product.

Response

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
Rinse mouth.

Disposal

Dispose of contents/container to an approved waste disposal plant

Physical and chemical hazards

Not applicable.

Health hazards

Immediate Health Effects: Not applicable.
Chronic effects: Not applicable.

Environmental hazards

Not applicable.

Other hazards which do not result in classification

Contact with acids liberates toxic gas.

3. Composition/information on ingredients

Chemical name	Weight-%	CAS No
sodium fluoride	1-3	7681-49-4
trisodium tetraoxovanadate	1-3	13721-39-6

4. First-aid measures**Description of necessary first aid measures****Inhalation**

Move to fresh air.

Eye contact

Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention if symptoms occur.

Skin contact

Wash off immediately with plenty of water. If skin irritation occurs, get medical advice/attention.

Ingestion	Clean mouth with water and afterwards drink plenty of water. Call a POISON CENTER or doctor/physician if exposed or you feel unwell.
<u>Most important symptoms/effects, acute and delayed</u>	Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
<u>For emergency responders</u>	No information available.
<u>Note to physicians</u>	Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment
Unsuitable Extinguishing Media	None
<u>Specific hazards arising from the chemical</u>	Thermal decomposition can lead to release of irritating and toxic gases and vapors.
<u>Special protective actions for fire-fighters</u>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
For emergency responders	Use personal protection recommended in Section 8.
<u>Environmental precautions</u>	Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.
<u>Methods and material for containment and cleaning up</u>	Prevent further leakage or spillage if safe to do so. Dike to collect large liquid spills. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.
<u>Precautions to prevent secondary hazards</u>	Clean contaminated objects and areas thoroughly observing environmental regulations.

7. Handling and storage

<u>Precautions for safe handling</u>	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. See Section 8 for information on appropriate personal protective equipment.
<u>Conditions for safe storage, including any incompatibilities</u>	Keep containers tightly closed in a dry, cool and well-ventilated place.
<u>Incompatible materials</u>	None known based on information supplied.

8. Exposure controls/personal protection

Occupational exposure limits

Chemical name	China	ACGIH TLV
sodium fluoride - 7681-49-4	TWA: 2 mg/m ³ TWA 2 mg/m ³ STEL 5 mg/m ³	TWA: 2.5 mg/m ³ F

Biological occupational exposure limits

No data available

Chemical name	Biological standards	Monitoring and observation processes	ACGIH
sodium fluoride - 7681-49-4			2 mg/L 3 mg/L

Monitoring and observation processes

No applicable information was found.

Engineering controls

Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection	Tightly fitting safety goggles.
Skin and body protection	Wear protective gloves/clothing. Lightweight protective clothing.
Hand protection	Impervious gloves.
Respiratory protection	In case of insufficient ventilation wear suitable respiratory equipment.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Clear
Color	Colorless
Physical state	Liquid
Odor	Odorless
Odor Threshold	No information available

Property	Values	Remarks • Method
pH	7.8 - 8	None known
Melting point/freezing point	no data available	None known
Boiling point or initial boiling point and boiling range	no data available	None known
Flash point	no data available	None known
Evaporation rate	no data available	None known
Flammability	no data available	None known

Flammability Limits in Air		None known
Upper explosion limit	no data available	
Lower explosion limit	no data available	
Vapor pressure	no data available	None known
Relative vapor density	No data available	None known
Relative density	no data available	None known
Solubility	no data available	None known
Solubility in other solvents	no data available	None known
Partition coefficient: n-octanol/water	no data available	None known
Autoignition temperature	no data available	None known
Decomposition temperature	no data available	None known
Viscosity	no data available	None known
Viscosity, dynamic	no data available	None known

Additional information

Explosive properties	No information available
Oxidizing properties	No information available

10. Stability and reactivity

Stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Conditions to Avoid Extremes of temperature and direct sunlight

Incompatible products Acids

Hazardous Decomposition Products Carbon oxides (COx), Phosphorous oxides, Halogenated compounds, Metal oxides

11. Toxicological information**Acute Toxicity****Numerical measures of toxicity**

No information available

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
sodium fluoride	= 52 mg/kg (Rat)	= 175 mg/kg (Rat)	-
trisodium tetraoxovanadate	= 330 mg/kg (rat)	-	-

Skin corrosion/irritation No information available

Serious eye damage/eye irritation No information available

Respiratory or skin sensitization No information available

Mutagenic effects No information available

Carcinogenicity No information available

Reproductive toxicity No information available.

Specific target organ toxicity (single exposure) No information available

Specific target organ toxicity (repeated exposure) No information available

Aspiration hazard No information available

12. Ecological information

Ecotoxicity The environmental impact of this product has not been fully investigated.

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
sodium fluoride	EC50 272 mg/L (Pseudokirchneriella subcapitata) 96 h EC50 850 mg/L (Desmodesmus subspicatus) 72 h	LC50 530 mg/L (Lepomis macrochirus) 96 h LC50 180 mg/L (Pimephales promelas) 96 h LC50 38 - 68 mg/L (Oncorhynchus mykiss) 96 h LC50 830 mg/L (Lepomis macrochirus) 96 h	EC50 98 mg/L (Daphnia magna) 48 h EC50 338 mg/L (Daphnia magna) 48 h
trisodium tetraoxovanadate	-	LC50 16.5 mg/L (Oncorhynchus tshawytscha) 96 h	-

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Mobility in soil No information available.

13. Disposal considerations

Waste chemicals Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. Do not empty into drains; dispose of this material and its container in a safe way.

Contaminated packaging Do not reuse empty containers.

14. Transport information

IMDG/IMO Not regulated

IATA Not regulated

China Not regulated

Special precautions for user

Please refer to the applicable dangerous goods regulations for additional information

15. Regulatory information

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

National regulations

Law of the People's Republic of China on Prevention and Control of Occupational Diseases

Catalog of occupational hazard factors: Not applicable

Catalog of occupational diseases: Not applicable

Chemical name	Category
trisodium tetraoxovanadate	Chemical hazards

Regulations on the Control over Safety of Hazardous Chemicals

Inventory of hazardous chemicals: Not applicable

Chemical name	Inventory of hazardous chemicals
sodium fluoride	Listed

GB 18218-2009 Identification of major hazard installations for dangerous chemicals: Not applicable

List of hazardous chemicals under priority management: Not applicable

Regulations on Labor Protection in Workplaces Where Toxic Substances Are Used

Inventory of highly toxic goods: Not applicable

Regulations for Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

List of toxic chemicals severely restricted for import and export in China: Not applicable

Measures for the Environmental Management of New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances: Contact supplier for inventory compliance status.

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer: Not applicable

The Stockholm Convention on Persistent Organic Pollutants: Not applicable

The Rotterdam Convention: Not applicable

16. Other information

Issuing Date: 2024-10-28

Revision Note: The symbol (*) in the margin of this SDS indicates that this line has been revised.

Abbreviations and acronyms

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA:	Time weighted average	STEL:	Short term exposure limit
Ceiling:	Maximum limit value:	*	Skin designation
C	Carcinogen		

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AELG(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
RTECS (Registry of Toxic Effects of Chemical Substances)
World Health Organization

Disclaimer

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End of Safety Data Sheet