

Safety Data Sheet (SDS) According to the OSHA Hazard Communication Standard 29 CFR 1910.1200

Issuing Date: 2019-02-05

Version: 1

SECTION 1. Identification

Product identifier

Product No 9904
Product name Rapamycin

Recommended use of the chemical and restrictions on use

Identified uses This product is intended for research purposes only.
Manufacturer, importer, supplier

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

Website www.cellsignal.com
Email address support@cellsignal.com
Emergency telephone number In case of emergency call CHEMTREC 1-800-424-9300

SECTION 2. Hazard(s) identification

Classification

This substance/mixture is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Germ cell mutagenicity	Category 2
Reproductive toxicity	Category 2
Specific target organ toxicity - repeated exposure (STOT RE)	Category 2 Category 1

GHS Label elements, including precautionary statements



Signal Word
 Danger.

Hazard statement(s)
 Causes damage to organs through prolonged or repeated exposure. Suspected of causing genetic defects. Suspected of

damaging fertility or the unborn child.

Precautionary Statement(s)

Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection.

IF exposed or concerned: Get medical advice/attention.

Store locked up.

Dispose of contents/container to an approved waste disposal plant.

Supplementary Hazard Information

No information available.

Hazards not otherwise classified (HNOC)

Not applicable.

Unknown Acute Toxicity 100% of the mixture consists of ingredient(s) of unknown acute toxicity

SECTION 3. Composition/information on ingredients

Chemical name	CAS No.	Weight-%
23,27-Epoxy-3H-pyrido(2,1-c)(1,4)oxaazacyclohept- iacontine-1,5,11,28,29(4H,6H,31H)-pentone, 9,10,12,13,14,21,22,23,24,25,26,27,32,33,34,34a-h exadecahydro-9,27-dihydroxy-3-(3-(4-hydroxy-3-me thoxycyclohexyl)-1-methylethyl)-10,21-dimethoxy-6, 8,12,14,20,26-hexamethyl-, (3S-(3R*(S*(1R*,3S*,4S*)),6S*,7E,9S*,10S*,12S*,1 4R*,15E,17E,19E,21R*,23R*,26S*,27S*,34aR*))-	53123-88-9	100

SECTION 4. First-aid measures

Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Consult a physician.
Skin contact	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Consult a physician.
Inhalation	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. Get medical attention immediately if symptoms occur.
Ingestion	Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Consult a physician.

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Advice for emergency responders

General advice Protection of first-aiders

For further assistance, contact your local Poison Control Center.

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

SECTION 5. Fire-fighting measures

Extinguishing media

Suitable Extinguishing Media Water spray. Carbon dioxide (CO₂). Dry chemical. Foam.

Unsuitable Extinguishing Media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

May emit toxic fumes under fire conditions.

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

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.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel 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. Ensure adequate ventilation. Avoid breathing vapors or mists.

Other information No information available.

Environmental precautions

Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.

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 Cover powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

SECTION 7. Handling and storage

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Do not breathe dust. Avoid contact with skin, eyes and clothing. Keep away from open flames, hot surfaces and sources of ignition.

Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Packaging material No information available.

Incompatible products Strong oxidizing agents.

SECTION 8. Exposure controls/personal protection

Control parameters

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Showers, eyewash stations, and ventilation systems.

Individual protection measures, such as personal protective equipment

Personal protective equipment (PPE) needs to be selected depending on the implemented engineering controls, frequency/duration of work activities and the concentrations of the hazardous substance.

Eye/face protection	Safety glasses with side-shields
Skin and body protection	Wear protective gloves/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.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Solid	Color	White
Appearance	Crystalline Powder	Odor Threshold	No information available
Odor	No information available		
Property	Values	Remarks	Method
pH	No information available		
Melting point/freezing point	183-185 °C		
Initial boiling point and boiling range			
Flash point		-	
Evaporation rate	No information available		
Flammability (solid, gas)	No information available		
Upper flammability limit	No information available		
Lower flammability limit	No information available		
Vapor pressure	No information available		
Vapor density	No information available		
Relative density	No information available		
Solubility	Practically insoluble		
Solubility in other solvents	No information available.		
Partition coefficient: n-octanol/water	No information available		
Autoignition temperature	No information available		
Decomposition temperature	No information available		
Viscosity	No information available		
Viscosity, dynamic	No information available		
Explosive properties	No information available		
Oxidizing properties	No information available		
Other information			
Softening point	No information available		
Molecular Weight	No information available		
VOC content	No information available		
Liquid Density	No information available		
Bulk density	No information available		

SECTION 10. Stability and reactivity

Reactivity

No information available.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Hazardous reactions None under normal processing.
Hazardous polymerization None under normal processing.

Conditions to Avoid

Protect from light. Heat.

Incompatible Materials

Strong oxidizing agents.

Hazardous Decomposition Products

Thermal decomposition can lead to release of toxic/corrosive gases and vapors. Nitrogen oxides (NOx). Carbon oxides (COx).

SECTION 11. Toxicological information**Information on likely routes of exposure**

Inhalation Inhalation of vapors in high concentration may cause irritation of respiratory system.
Eye contact May cause irritation.
Skin contact May be harmful in contact with skin.
Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Information on toxicological effects

This material should only be handled by, or under the close supervision of, those properly qualified in the handling and use of potentially hazardous chemicals. It should be borne in mind that the toxicological and physiological properties of this compound is not well defined.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
23,27-Epoxy-3H-pyrido(2,1-c)(1,4)oxazacyclohentacontine-1,5,11,28,29(4H,6H,31H)-pentone, 9,10,12,13,14,21,22,23,24,25,26,27,32,33,34,34a-hexadecahydro-9,27-dihydroxy-3-(3-(4-hydroxy-3-methoxycyclohexyl)-1-methylethyl)-10,21-dimethoxy-6,8,12,14,20,26-hexamethyl-, (3S-(3R*(S*(1R*,3S*,4S*)),6S*,7E,9S*,10S*,12S*,14R*,15E,17E,19E,21R*,23R*,26S*,27S*,34aR*))-	(mouse): >2,500 mg/kg	-	-

Unknown Acute Toxicity 100% of the mixture consists of ingredient(s) of unknown acute toxicity.

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

Symptoms No information available.
Sensitization No information available.
Mutagenic effects Substances which should be regarded as being mutagenic to man.
Carcinogenicity No component of this product present at levels greater than or equal to 0.1% is identifiable as probable, possible or confirmed carcinogen by IARC, ACGIH, NTP, or OSHA. Product is or contains a chemical which is a known or suspected reproductive hazard.
Reproductive toxicity
STOT - single exposure No information available.
STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure.
Neurological effects No information available.

Aspiration Hazard No information available.

SECTION 12. Ecological information

Ecotoxicity

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

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

Other adverse effects

No information available.

SECTION 13. Disposal considerations

Waste Disposal Methods

Dispose of in accordance with all applicable national environmental laws and regulations.

Disposal considerations

Do not empty into drains; dispose of this material and its container in a safe way.

SECTION 14. Transport information

This material is not subject to regulation as a hazardous material for shipping.

SECTION 15. Regulatory information

North American Inventory Listing

Canadian Workplace Hazardous Materials Information System (WHMIS) Classification

This product does not meet the criteria for classification under the Hazardous Products Act.

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	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

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).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

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 under applicable state right-to-know regulations

U.S. FIFRA Label Information

This product does not contain any substances regulated as pesticides.

US Commerce Department - Export Administration Regulations Information

This product does not contain any substances regulated under the Chemical Weapons Convention (CWC).

U.S. Drug Enforcement Administration Information

This product does not contain any substances regulated under the DEA.

SECTION 16. Other information

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Disclaimer

The information provided in this 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