

Rapamycin (Sirolimus) SDS | MSDS

1.PRODUCT AND COMPANY IDENTIFICATION

Product identifier

- **Product Name:** Rapamycin (Sirolimus)
- **Catalog Number:** S1039
- **CAS Number:** 53123-88-9
- **IUPAC Name:** (3S,6R,7E,9R,10R,12R,14S,15E,17E,19E,21S,23S,26R,27R,34aS)-9,10,12,13,14,21,22,23,24,25,26,27,32,33,34,34a-Hexadecahydro-9,27-dihydroxy-3-[(1R)-2-[(1S,3R,4R)-4-hydroxy-3-methoxycyclohexyl]-1-methylethyl]-10,21-dimethoxy-6,8,12,14,20,26-hexamethyl-23,27-epoxy-3H-pyrido[2,1-c][1,4]oxaazacyclohentacontine-1,5,11,28,29(4H,6H,31H)-pentone

Relevant identified uses and uses advised against

- **Identified uses:** For research and development use only; laboratory chemicals; manufacture of substances.
- **Uses advised against:** Not for pharmaceutical, household, or other unapproved uses.

Details of the supplier

- **Company :** Selleck Chemicals
- **TollFree :** +1 877 796-6397
- **Tel :** +1 832 582-8158
- **Fax :** +1 832 582-8590

Emergency telephone number

- **Emergency phone #:** +1 832 582-8158

2. Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):

- Carcinogenicity (Category 2), H351
- Reproductive toxicity (Category 2), H361

2.2 GHS Label elements, including precautionary statements

Pictogram:



Signal Word: Warning

Hazard Statements

- H351: Suspected of causing cancer.
- H361: Suspected of damaging fertility or the unborn child.

Precautionary Statements

- P201: Obtain special instructions before use.
- P202: Do not handle until all safety precautions have been read and understood.
- P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P308 + P313: IF exposed or concerned: Get medical advice/ attention.
- P405: Store locked up.
- P501: Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Caution: Physiologically highly active, therapeutically usable substance. The substance must be handled with the care required for hazardous materials.

3. Composition/information on ingredients

3.1 Substances

- **Chemical Name:** Rapamycin
- **Formula:** (3S,6R,7E,9R,10R,12R,14S,15E,17E,19E,21S,23S,26R,27R,34aS)-9,10,12,13,14,21,22,23,24,25,26,27,32,33,34,34a-Hexadecahydro-9,27-dihydroxy-3-[(1R)-2-[(1S,3R,4R)-4-hydroxy-3-methoxycyclohexyl]-1-methylethyl]-10,21-dimethoxy-6,8,12,14,20,26-hexamethyl-23,27-epoxy-3H-pyrido[2,1-c][1,4]oxaazacyclohentriacontine-1,5,11,28,29(4H,6H,31H)-pentone
- **Molecular weight:** 914.17 g/mol
- **CAS-No.:** 53123-88-9
- **EC-No.:** 610-965-5
- **Concentration:** <= 100 %
- **Classification:** Carc. 2; Repr. 2; H351, H361

4. First aid measures

4.1 Description of first-aid measures

- **General advice:** Show this safety data sheet to the attending physician.
- **If inhaled:** Move person to fresh air. Call a physician.
- **In case of skin contact:** Immediately remove contaminated clothing. Rinse skin with water or shower. Consult a physician.
- **In case of eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes, removing contact lenses. Consult an ophthalmologist.
- **If swallowed:** Immediately provide the victim with water (maximum of two glasses). Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the hazard labelling (Section 2.2) and/or in Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

N/A.

5. Firefighting measures

5.1 Extinguishing media

- **Suitable extinguishing media:** Water, Foam, Carbon dioxide (CO₂), Dry powder.
- **Unsuitable extinguishing media:** No limitations of extinguishing agents are specified for this substance.

5.2 Special hazards arising from the substance or mixture

- Carbon oxides
- Nitrogen oxides (NO_x)
- Combustible material. Fire may result in the evolution of nitrogen oxides and other hazardous combustion gases or vapors.

5.3 Advice for firefighters

Stay in the danger area only with self-contained breathing apparatus. Prevent skin contact by maintaining a safe distance or wearing suitable protective clothing.

5.4 Further information

Use water spray jet to suppress gases, vapors, or mists. Prevent fire extinguishing water from contaminating surface water or groundwater systems.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, and consult an expert. For personal protection, see Section 8.

6.2 Environmental precautions

Do not allow the product to enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe material restrictions (Sections 7 and 10). Take up dry. Dispose of properly. Clean the affected area and avoid the generation of dusts.

6.4 Reference to other sections

For disposal, see Section 13.

7. Handling and storage

7.1 Precautions for safe handling

- **Advice on safe handling:** Work under a hood. Do not inhale the substance or mixture.

- **Hygiene measures:** Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face thoroughly after working with the substance.

7.2 Conditions for safe storage, including any incompatibilities

- **Storage conditions:** Keep container tightly closed and dry. Store locked up or in an area accessible only to authorized persons.
- **Recommended storage temperature:** Refer to product label.
- **Storage class (TRGS 510):** 11: Combustible Solids.

7.3 Specific end use(s)

Apart from the uses mentioned in Section 1.2, no other specific uses are stipulated.

8. Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

- **Appropriate engineering controls:** Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with the substance.
- **Eye/face protection:** Use safety glasses tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).
- **Skin protection:** Handle with impervious nitrile rubber gloves (minimum thickness 0.11 mm, break through time 480 min).
- **Body Protection:** Wear suitable protective clothing.
- **Respiratory protection:** Required when dusts are generated. Recommended filter type: P3.
- **Control of environmental exposure:** Do not let product enter drains.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

- **Appearance:** Form: powder; Color: clear
- **Odor:** N/A
- **Odor Threshold:** N/A
- **pH:** N/A
- **Melting point/freezing point:** 183 - 185 °C (361 - 365 °F)
- **Initial boiling point and boiling range:** 973.02 °C (1783.44 °F) at 1,013.3 hPa
- **Flash point:** N/A
- **Evaporation rate:** N/A
- **Flammability (solid, gas):** N/A
- **Upper/lower flammability or explosive limits:** N/A
- **Vapor pressure:** N/A
- **Vapor density:** N/A

- **Density:** N/A
- **Relative density:** N/A
- **Water solubility:** Insoluble
- **Partition coefficient: n-octanol/water:** N/A
- **Autoignition temperature:** N/A
- **Decomposition temperature:** N/A
- **Viscosity:** N/A
- **Explosive properties:** N/A
- **Oxidizing properties:** None

9.2 Other safety information

N/A.

10. Stability and reactivity

10.1 Reactivity

Flammable organic substances in fine distribution may have a dust explosion potential when whirled up.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

N/A.

10.4 Conditions to avoid

No information available.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

In the event of fire: see Section 5.

11. Toxicological information

11.1 Information on toxicological effects

- **Acute toxicity:** LD50 Oral - Mouse - > 2,500 mg/kg (Remarks: RTECS). Inhalation and Dermal data not available.
- **Skin corrosion/irritation:** N/A.
- **Serious eye damage/eye irritation:** N/A.
- **Respiratory or skin sensitization:** N/A.
- **Germ cell mutagenicity:** N/A.

- **Carcinogenicity:** Suspected of causing cancer. No components present at levels $\geq 0.1\%$ are identified as probable, possible, or confirmed human carcinogens by IARC, NTP, or OSHA.
- **Reproductive toxicity:** Suspected of damaging the unborn child and suspected of damaging fertility.
- **Specific target organ toxicity - single exposure:** N/A.
- **Specific target organ toxicity - repeated exposure:** N/A.
- **Aspiration hazard:** N/A.

11.2 Additional Information

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Immune system. -

12. Ecological information

N/A

13. Disposal considerations

13.1 Waste treatment methods

- **Product:** Waste material must be disposed of in accordance with national and local regulations. Leave chemicals in original containers. Do not mix with other waste.
- **Contaminated packaging:** Handle uncleaned containers in the same manner as the product itself.

14. Transport information

- **DOT (US):** Not dangerous goods.
- **IMDG:** Not dangerous goods.
- **IATA:** Not dangerous goods.
- **Further information:** Not classified as dangerous in the meaning of transport regulations.

15. Regulatory information

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 313 : This material does not contain any chemical

components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

Maine Chemicals of High Concern

Product does not contain

16. OTHER INFORMATION

Revision Date: 2026/07/07

Further Information: The information provided is believed to be correct but is not exhaustive and should be used only as a guideline based on current knowledge. It does not represent a guarantee of the properties of the product. Selleck Chemicals Corporation and its Affiliates shall not be held liable for any damage resulting from handling or contact with the product.