

SECTION 1. IDENTIFICATION:

Trade name: Rapamycin

Product Number: [R-5000](#)

Manufacturer/Supplier:

LC Laboratories

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Woburn, MA 01801 USA

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SECTION 2. HAZARD(S) IDENTIFICATION:

Hazard Description: Irritant; Potent Immunosuppressant

Substance Class Identifier: Tumorigen; Drug; Mutagen; Natural Product; Human Data

May be harmful if swallowed, inhaled, or absorbed through the skin

Exposure may impair fertility and may be harmful to a developing fetus

Causes skin and eye irritation, may cause respiratory irritation

Suspected of causing genetic defects

Signal Word: Danger

GHS Hazard Statements:

H303 - May be harmful if swallowed

H313 - May be harmful in contact with skin

H315 - Causes skin irritation

H320 - Causes eye irritation

H333 - May be harmful if inhaled

H335 - May cause respiratory irritation

H341 - Suspected of causing genetic defects

H360 - May damage fertility or the unborn child

H373 - May cause damage to organs through prolonged or repeated exposure

GHS Precautionary Statements:

P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray

P264 - Wash skin thoroughly after handling

P280 - Wear protective gloves/eye protection/face protection

P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P332 + P313 - If skin irritation occurs: Get medical advice/attention

P337 + P313 - If eye irritation persists: Get medical advice/attention

P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor/physician

P405 - Store locked up

P501 - Dispose of contents/container in accordance with local/regional/national/international regulations



SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS:

Chemical Name: Rapamycin

Synonyms: Antibiotic AY 22989, AY-22989, Cypher, RAPA, Rapamune, RPM, NSC-226080, LCP-Siro, SILA 9268A, Sirolimus, Supralimus

Hazardous Ingredient: Rapamycin

CAS Registry Number: 53123-88-9

Molecular Weight: 914.17

Molecular Formula: C₅₁H₇₉NO₁₃

SECTION 4. FIRST-AID MEASURES:

After Inhalation: If inhaled, remove to fresh air; if breathing is difficult, give oxygen; if breathing stops, give artificial respiration

After skin contact: flush with copious amounts of water; remove contaminated clothing and shoes; call a physician

After eye contact: check for and remove contact lenses and flush with copious amounts of water; assure adequate flushing by separating the eyelids with fingers; call a physician

After swallowing: if swallowed, wash out mouth with copious amounts of water; call a physician

SECTION 5. FIRE-FIGHTING MEASURES:

Suitable extinguishing agents: water spray, carbon dioxide, dry chemical powder or foam

Protective equipment: wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes

Unusual fire hazard: none known

SECTION 6. ACCIDENTAL RELEASE MEASURES:

Person-related safety precautions: cordon off area of spill; wear self-contained breathing apparatus, protective clothing and heavy rubber gloves

Measures for cleaning/collecting: absorb solutions with finely-powdered liquid-binding material (diatomite, universal binders); decontaminate surfaces and equipment by scrubbing with alcohol; dispose of contaminated material according to Section 13

SECTION 7. HANDLING AND STORAGE:

Information for safe handling: avoid contact with skin, eyes and clothing; material may be an irritant

Storage: store solid and solutions at -20 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

Personal protective equipment as follows:

Breathing equipment: NIOSH/MSHA-approved respirator

Protection of hands: chemical-resistant rubber gloves

Eye protection: chemical safety goggles

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES:

Form: crystalline solid; granular or powder

Color: white to off-white

Odor: none

Melting point/Melting range: 173-187°C

Danger of explosion: none

Solubility in / Miscibility with water: very poorly soluble in water; maximum solubility in plain water is estimated to be about 5-10 µM; buffers, serum, or other additives may increase or decrease the aqueous solubility

Solvent content: none

Organic solvents: soluble in DMSO at 200 mg/mL; soluble in ethanol at 50 mg/mL

SECTION 10. STABILITY AND REACTIVITY:

Stability: stable if stored as directed; avoid strong oxidizing agents

Thermal decomposition / conditions to be avoided: protect from light and heat

Dangerous products of decomposition: thermal decomposition may produce toxic gases such as carbon monoxide, carbon dioxide, and nitrogen oxides

SECTION 11. TOXICOLOGICAL INFORMATION:

RTECS #: VE6250000

Acute toxicity: oral toxicity (LD50): >2500 mg/kg (mouse); intraperitoneal toxicity (LD50): 18.22 mg/kg (rat), 597 mg/kg (mouse)

Primary irritant effect:

On the skin: causes skin irritation; may be harmful if absorbed through the skin

On the eye: causes eye irritation

Inhalation: may cause respiratory tract irritation; may be harmful if inhaled

Ingestion: may be harmful if swallowed

SECTION 12. ECOLOGICAL INFORMATION:

General notes: no data available

Treat as potentially toxic if released into the environment

SECTION 13. DISPOSAL CONSIDERATIONS:

Dispose of in accordance with prevailing country, federal, state and local regulations

SECTION 14. TRANSPORT INFORMATION:

DOT:

Proper shipping name: none

Non-Hazardous for transport: this substance is considered to be non-hazardous for transport

IATA class:

Proper shipping name: none

Non-Hazardous for transport: this substance is considered to be non-hazardous for transport

SECTION 15. REGULATORY INFORMATION:

Code letter and hazard designation of product:

Xi: Irritant

EU Risk And Safety phrases:

S22: Do not breathe dust

S24/25: Avoid contact with skin and eyes

S36/37/39: Wear suitable protective clothing, gloves and eye/face protection

S45: In case of accident or if you feel unwell seek medical advice immediately (show the label where possible)

R36/38: Irritating to eyes and skin

R46: May cause inheritable genetic damage

R60: May impair fertility

R61: May cause harm to the unborn child

SECTION 16. OTHER INFORMATION:

The above information is believed to be correct based on our present knowledge but does not purport to be complete. For research use only by trained personnel. The burden of safe use of this material rests entirely with the user. LC Laboratories disclaims all liability

Reviewed: June 1, 2018