Safety Data Sheet

SAFETY DATA SHEET - LC LABORATORIES
REVISION DATE: JULY 1, 2019

SECTION 1. IDENTIFICATION:

Trade name: Ascomycin
Product Number: A-1040
Manufacturer/Supplier:
LC Laboratories
165 New Boston Street
Woburn, MA 01801 USA
1-781-937-0777 Fax: 1-781-938-5420

SECTION 2. HAZARD(S) IDENTIFICATION:

Hazard Description: Harmful; immunosuppressant
Substance Class Identifier: Drug; Natural Product
The toxicological properties of this substance have not been fully tested
Harmful if swallowed, inhaled, or absorbed through the skin
Exposure may cause irritation of the respiratory tract, eye, and skin and allergic respiratory and skin reaction
Signal Word: Warning

GHS Hazard Statements:

H302+312+332 - Harmful if swallowed, in contact with skin or if inhaled

GHS Precautionary Statements:

P2562 - Do not get in eyes, on skin or on clothing
WARNING: For Laboratory Research Use Only

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS:

Chemical Name: (3*S*,4*R*,5*S*,8*R*,9*E*,12*S*,14*S*,15*R*,16*S*,18*R*,19*R*,26*aS*)-8-ethyl-5,6,8,11,12,13,14,15,16,17,18,19,24,25,26,26*a*-hexadecahydro-5,19-dihydroxy-3-[(1*E*)-2-[(1*R*,3*R*,4*R*)-4-hydroxy-3-methoxycyclohexyl]-1-methylethenyl]-14,16-dimethoxy-4,10,12,18-tetramethyl-15,19-Epoxy-3*H*-pyrido[2,1-*c*][1,4]oxaazacyclotricosine-1,7,20,21(4*H*,23*H*)-tetrone
Synonyms: Changchuanmycin, FK-520, FR-520, FR-900520, Immunomycin, L 683590, NSC-106410
Hazardous Ingredient: Ascomycin
CAS Registry Number: 104987-12-4
Molecular Weight: 792.01
Molecular Formula: $C_{43}H_{69}NO_{12}$

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; 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

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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: may emit toxic fumes under fire conditions such as carbon monoxide, etc.

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 ºC

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION:
Personal protective equipment as follows:
Breathing equipment: NIOSH/MSHA-approved respirator
Protection of hands: handle with Nitrile rubber gloves with minimum thickness of 0.11 mm (4.3 mil). This recommendation should not be interpreted as offering an approval for any specific use conditions. Please review this recommendation with a safety officer to evaluate if it is appropriate for the anticipated use.
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: 155-165 ºC
Danger of explosion: none
Solubility in / Miscibility with water: very poorly soluble in water; maximum solubility in plain water is estimated to be about 10-50 µM; buffers, serum, or other additives may increase or decrease the aqueous solubility
Solvent content: none
Organic solvents: soluble in DMSO at 65 mg/mL; soluble in ethanol at 50 mg/mL with warming

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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

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SECTION 11. TOXICOLOGICAL INFORMATION:
RTECS #: KD4185000
Acute toxicity: intraperitoneal toxicity (LD): >100 mg/kg (mouse)
Primary irritant effect:
On the skin: may cause irritation; harmful if absorbed through the skin
On the eye: may cause irritation
Inhalation: harmful if inhaled; may cause respiratory tract irritation
Ingestion: 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

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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:
Xn: Harmful
EU Risk And Safety phrases:
S22: Do not breathe dust
S24/25: Avoid contact with skin and eyes
S28: After contact with skin, wash immediately with plenty of water
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection
R20/21/22: Harmful by inhalation, in contact with skin and if swallowed

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: July 1, 2019