Safety Data Sheet

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

SECTION 1. IDENTIFICATION:

Trade name: Cyclosporin A Product Number: <u>C-6000</u> 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; potent immunosuppresant Substance Class Identifier: Tumorigen; Drug; Mutagen; Reproductive Effector; Human Data Harmful if swallowed May be harmful if inhaled or absorbed through the skin Ingestion may cause damage to any/all of the following systems: cardiovascular, central nervous system, dermatologic, otolaryngological (eye, ear, nose, throat), gastrointestinal, genitourinary, hematologic-lymphatic, hepatic, metabolic-nutritional, musculoskeletal, respiratory May damage fertility and/or the unborn child and breastfed infant Exposure may cause irritation to skin, eyes, mucous membranes, and upper respiratory tract Signal Word: Danger **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: Cyclosporin A Synonyms: Cyclosporine, Antibiotic S 7481F1, Ciclosporin A, Ramihyphin A, CsA, Sandimmune Hazardous Ingredient: Cyclosporin A CAS Registry Number: 59865-13-3 Molecular Weight: 1202.61

Molecular Formula: $C_{62}H_{111}N_{11}O_{12}$

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 conact 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 liquidbinding 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 $^{\circ}C$

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

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES:

Form: crystalline solid; granular or powder Color: white to off-white Odor: none Melting point/Melting range: 148-151°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 100 mg/mL; soluble in ethanol at 200 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 #: GZ4120000

Acute toxicity: oral toxicity (LD50): 1480 mg/kg (rat), 2329 mg/kg (mouse), >1g/kg (rabbit); intraperitoneal toxicity (LD50): 147 mg/kg (rat); intravenous toxicity (LD50): 147 mg/kg (rat), 24 mg/kg (rat), 10 mg/kg (rabbit), subcutaneous toxicity (LD50): 286 mg/kg (rat) Primary irritant effect: On the skin: may be an irritant; may be harmful if absorbed through the skin

On the eye: may be an irritant

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

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 o water 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) S53: Avoid exposure - obtain special instructions before use R22: Harmful if swallowed R45: May cause cancer 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: July 1, 2019