Material Safety Data Sheet (MSDS) for Cyclosporin A



I. Identification:

Product name: Cyclosporin A **Product Catalog:** 9973

Manufacturer Supplier: Cell Signaling Technology 3 Trask Lane Danvers, MA 01923 USA

978-867-2300 TEL 978-867-2400 FAX

978-578-6737 EMERGENCY TEL

II. Composition/Information:

Substance Name: Cyclosporin A

Synonyms: Cyclosporine, Antibiotic S 7481F1, Ciclosporin A, Ramihyphin A,

CsA, Sandimmune

CAS#: 59865-13-3 **Mol. Wt.**: 1202.61 **Mol. Formula**: $C_{69}H_{111}N_{11}O_{12}$

III. Hazard Identification:

Harmful by ingestion. Carcinogen. Potent immunosuppressant.

Target Organs: Immune System, Kidney, Liver.

May effect fertility and/or unborn child and breastfed infants; lymphomas; convulsions; seizure or tremors; nutritional and gross metabolic changes; gastrointestinal disturbances; cardiovascular changes; biochemical changes.

NFPA Rating: Health: 1 (*chronic health hazard) Flammability: 0 Reactivity: 0

IV. First Aid Measures:

Inhalation: If inhaled, remove to fresh air. If breathing is difficult, get medical attention. **Ingestion:** If swallowed, wash out mouth with water provided person is conscious. Get medical attention

Skin exposure: In case of contact, immediately wash skin with soap and water for at least 15 minutes. Remove contaminated clothing. Wash clothing before reuse.

Eye exposure: In case of contact with eyes, immediately flush eyes with water for at least 15 minutes. Get medical attention.

V. Fire Fighting Measures:

Flash Point: Data not available.

Autoignition Temperature: Data not available.

Explosion: Data not available.

Fire extinguishing media: Water spray, dry chemical, alcohol foam, or carbon dioxide. **Firefighting:** Wear protective clothing and self-contained breathing apparatus to prevent contact with skin and eyes. May emit toxic fumes under fire conditions.

VI. Accidental Release Measures: Wear appropriate personal protective equipment. Do not allow material to enter drains. Sweep up material and avoid raising dust. Transfer to a closed chemical waste container for disposal. Wash spill site after material has been picked up for disposal.

VII. Handling And Storage:

Storage: Store in tightly closed container at -20°C.

Avoid inhalation. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.

VIII. Exposure Controls/Personal:

Ventilation System: A system of local and/or general exhaust is required.
Skin Protection: Wear compatible chemical resistant gloves and protective clothing.
Eye protection: Wear protective safety glasses or chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

IX. Physical And Chemical Properties

Appearance: white to off-white powder

Odor: none

pH: data not available
Melting Point: 148-151°C
Boiling Point: data not available
Freezing Point: data not available

Volatile Organic Compounds: no

Solubility: Slightly soluble in water and saturated hydrocarbons;

very soluble in methanol, acetone, DMSO, diethyl

ether, chloroform

X. Stability and Reactivity:

Stability: Stable under normal conditions. Avoid strong oxidizing agents, alkali metals. Protect from light and heat.

Hazardous decomposition under fire conditions: May produce toxic gases such as carbon monoxide, carbon dioxide, and nitrogen oxides.

XI. Toxicological Information:

RTECS# GZ4120000

RTECS categories: Tumorigen, Drug, Mutagen, Reproductive Effector

Acute Effects: LD50 Oral. Rat. 1480 mg/kg.
Behavioral: Muscle contraction or spasticity;
Skin and appendages: Hair, other;
Gastrointestinal: Hypermotility, diarrhea

Chronic Effects: Carcinogen. May cause reproductive effects.

Potential Health Effects: Not established.

Inhalation: May be harmful, may be irritating to mucous membranes and upper

respiratory tract.

Skin: May be harmful if absorbed through skin. May cause skin irritation. **Eyes:** May be harmful if absorbed through the eyes. May cause eye irritation.

Ingestion: May be harmful if swallowed.

XII. Ecological Information: Data not available.

XIII. Disposal Considerations: Dispose of in accordance with federal, state, local environmental regulations.

XIV. Transport Information:

DOT: Proper Shipping Name: This substance is considered non-hazardous for transport. **IATA: Proper Shipping Name:** This substance is considered non-hazardous for air transport.

XV. Regulatory Information:

Safety Phrases:

Wear suitable protective clothing, gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show label where possible). This material and its container must be disposed of as hazardous waste.

Risk Phrases:

May be harmful if swallowed, inhaled or contact with skin. May cause cancer. May impair fertility. Possible risk of impaired fertility. Possible risk of harm to the unborn child.

Regulatory Information:

SARA 313: Not Listed Canada (WHMIS): DSL listed.

Superlist Classification Codes:

IARC (International Agency for Research on Cancer): carcinogenic evaluation: Group 1. NTP (National Toxicology Program Annual Report on Carcinogens): Known to be a carcinogen. California Proposition 65: Listed.

XVI. Other Information:

This compound is sold only for research use only. It is not for use in humans. To the best of our knowledge, this document is accurate. It is intended to serve as a guide for safe use of this product in a laboratory setting by experienced personnel. The burden of safe use of this material rests entirely with the user. Cell Signaling Technology, Inc., shall not be held liable for any damage resulting from the handling of or from contact with the above product.