Safety Data Sheet

Safety Data Sheet - LC Laboratories Revision Date: July 1, 2019

SECTION 1. IDENTIFICATION:

Trade name: Fenretinide Product Number: F-4077 Manufacturer/Supplier:

LC Laboratories

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SECTION 2. HAZARD(S) IDENTIFICATION:

Hazard Description: Harmful

RTECS Substance category: Drug; Mutagen; Reproductive Effector; Human Data

Harmful if swallowed, inhaled, or absorbed through the skin

Ingestion may result in nyctalopia (diminished dark adaptation or night-

blindness), dermatologic disorders such as skin and mucosal dryness, pruritus (itch), and urticaria (hives), gastrointestinal symptoms, ocular surface irritation ranging from conjunctivitis to dry eye syndrome, anemia, and

hypoalbuminemia (reduced serum albumin level)

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

Exposure may cause irritation of the 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: *N*-(4-Hydroxyphenyl)-retinamide

Synonyms: 4-HPR, (4-Hydroxyphenyl)retinamide, all-trans-4'-

Hydroxyretinanilide, all-trans-N-(4-Hydroxyphenyl)retinamide, MK-4016, McN-R-

1967, N-(4-Hydroxyphenyl)-all-trans-retinamide, Retinoic acid p-

hydroxyphenylamide, Retinoic acid p-hydroxyanilide, RII retinamide, Ro 22-4667

Hazardous Ingredient: Fenretinide CAS Registry Number: 65646-68-6

Molecular Weight: 391.55

Molecular Formula: C₂₆H₃₃NO₂

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

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 °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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES:

Form: crystalline solid; granular or powder

Color: yellow Odor: none

Melting point/Melting range: 150-160 °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 1-5 μ M; buffers, serum, or

other additives may increase or decrease the aqueous solubility

Solvent content:

Organic solvents: soluble in DMSO at 90 mg/mL; soluble in ethanol at 25 mg/mL

with warming

SECTION 10. STABILITY AND REACTIVITY:

Stability: avoid acids and bases

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 and carbon dioxide, and nitrogen oxides

SECTION 11. TOXICOLOGICAL INFORMATION:

RTECS #: VH6420000

Acute toxicity: oral toxicity (TDLo): 180 mg/kg (man), 210 mg/kg (woman), 8388

mg/kg (mouse); intraperitoneal toxicity (TDLo): 2138 mg/kg (mouse)

Primary irritant effect:

On the skin: may be an irritant; harmful if absorbed through the skin

On the eye: may be an irritant

Inhalation: may cause respiratory tract irritation; 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 of 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)

R20/21/22: Harmful by inhalation, in contact with skin and if swallowed

R61: May cause harm to the unborn child

R62: Possible risk of impaired fertility

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