Safety Data Sheet

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

SECTION 1. IDENTIFICATION:

Trade name: Vorinostat Product Number: V-8477 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: Warning - Pharmacologically Active Ingredient

Toxic to aquatic organisms

May be harmful to unborn child

Ingestion may adversely affect the blood, lymphoid tissues, testes, and

gastrointestinal tract

Ingestion may result in thrombocytopenia (low platelet count), leukopenia/neutropenia (both types of low white blood cell count), fatigue, abdominal pain, anorexia (loss of appetite), diarrhea, and nausea Exposure may cause irritation of the respiratory tract, eye, and skin 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-Hydroxy-N'-phenyloctanediamide

Synonyms: MK-0683, SAHA, Suberoylanilide Hydroxamic Acid,

Suberanilohydroxamic Acid, Zolinza Hazardous Ingredient: Vorinostat CAS Registry Number: 149647-78-9

Molecular Weight: 264.32

Molecular Formula: C14H20N2O3

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: white to off-white

Odor: none

Melting point/Melting range: 151-163 °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 20-50 μ M; buffers, serum, or

other additives may increase or decrease the aqueous solubility

Solvent content:

Organic solvents: soluble in DMSO at 66 mg/mL; soluble in ethanol at 2 mg/mL

with slight 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 #: not available

Acute toxicity: oral toxicity (LD50): 2000 mg/kg (mouse)

Primary irritant effect: not known

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

On the eye: may be an irritant

Inhalation: may be an irritant; may be harmful if inhaled

Ingestion: may be harmful if swallowed; may result in fetal harm

SECTION 12. ECOLOGICAL INFORMATION:

General notes: strictly avoid contamination of the environment

Acute toxicity (fish): LC50: >10 mg/L (Fathead Minnow, 96 h); 10 mg/L

(Sheepshead Minnow, 96 h)

Acute toxicity (aguatic invertebrates): LC50: >10 mg/L (Daphnia magna (water

flea), 48 h); 7.4 mg/L (Mysidopsis juniae (shrimp), 96 h)

Acute toxicity (aquatic plants): EC50: 0.080 mg/L (Selenastrum

capricornutum (green algae), 96 h)

SECTION 13. DISPOSAL CONSIDERATIONS:

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

SECTION 14. TRANSPORT INFORMATION:

UN number: 3077

DOT: Environmentally hazardous substance, solid, n.o.s. (Vorinostat), Class: 9,

Packing group: III

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IMDG: Environmentally hazardous substance, solid, n.o.s. (Vorinostat), Class: 9,

Packing group: III

IATA: Environmentally hazardous substance, solid, n.o.s. (Vorinostat), Class: 9,

Packing group: IIII

SECTION 15. REGULATORY INFORMATION:

Code letter and hazard designation of product: Xn: Harmful

EU Risk And Safety phrases:

S22: Do not breathe dust

S36/37: Wear suitable protective clothing and gloves

S45: In case of accident or if you feel unwell, seek medical advice immediately

(show label where possible)

R50: Very toxic to aquatic organisms

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