Safety Data Sheet

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

SECTION 1. IDENTIFICATION:

Trade name: Panobinostat, Free Base

Product Number: P-3703 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: Toxic; Irritant

Toxic if swallowed or inhaled

May be harmful if absorbed through the skin

Ingestion may cause adverse gastrointestinal and blood effects including thrombocytopenia (decreased number of platelets), neutropenia (reduction of a certain type of white blood cells), anemia, fatigue, nausea, vomiting, diarrhea, and anorexia (decreased appetite)

May be harmful to unborn child

Irritating to eyes, mucous membranes, upper respiratory tract, and skin and can result in skin infection and eye swelling

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: (2E)-N-hydroxy-3-[4-[[2-(2-methyl-1H-indol-3-

yl)ethylamino]methyl]phenyl]-2-propenamide Synonyms: Faridak, LBH-589, NVP-LBH-589 Hazardous Ingredient: Panobinostat, Free Base

CAS Registry Number: 404950-80-7

Molecular Weight: 349.43

Molecular Formula: C₂₁H₂₃N₃O₂

SECTION 4. FIRST-AID MEASURES:

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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: 156-168 °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 200 mg/mL; soluble in ethanol at 5 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 #: UC6378000 Acute toxicity: not known Primary irritant effect:

On the skin: causes skin irritation; may be harmful if absobed through the skin

On the eye: causes eye irritation

Inhalation: toxic if inhaled; causes respiratory irritation

Ingestion: toxic 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:

UN number: 2811

DOT:

Proper shipping name: Toxic solid, organic, n.o.s. ((2E)-N-hydroxy-3-[4-[[2-(2-

methyl-1*H*-indol-3-yl)ethylamino|methyl|phenyl|-2-propenamide)

Hazard Class: 6.1 Packing group: III

IATA class:

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SECTION 15. REGULATORY INFORMATION:

Code letter and hazard designation of product:

T: Toxic; Xi: Irritant

EU Risk And Safety phrases: S22: Do not breathe dust

S24/25: Avoid contact with skin and eyes

S26: In case of contact with eyes, rinse immediately with plenty of water and

seek medical advice

S28: After contact with skin, wash immediately with plenty of water S36/37/39: Wear protective clothing, gloves and eye/face protection

R23/25: Toxic by inhalation and if swallowed

R38: Irritating to skin

R41: Risk of serious damages to eyes

R48: Toxic; danger of serious damage to health by prolonged exposure

R62: Possible risk of impaired fertility

R63: Possible risk of harm to 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