

Vorinostat

Catalog Number: orb61117

Material Safety Data Sheet

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product name: Vorinostat
Catalog No.: orb61117

Details of the supplier of the safety data sheet

Company: Biorbyt Ltd.
Tel: +44 (0)1223 859 353
Fax: +44 (0)1223 280 240

SECTION 2. HAZARD(S) IDENTIFICATION:

Hazard Description: Warning - Pharmacologic ally 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), diarrhoea, and nausea

Exposure may cause irritation of the respiratory tract, eye, and skin

Signal Word: Danger

GHS Hazard Statements:

H335 - May cause respiratory irritation

H341 - Suspected of causing genetic defects

H360 - May damage fertility or the unborn child

H400 - Very toxic to aquatic life

GHS Precautionary Statements:

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray

P264 - Wash skin thoroughly after handling

P280 - Wear protective gloves/eye protection/face protection

P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor/physician



SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS:

Chemical Name: *N*-Hydroxy-*N'*-phenyloctanediamide

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

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: chemical-resistant rubber gloves

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 µM; 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 (aquatic 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

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