Safety Data Sheet

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

SECTION 1. IDENTIFICATION:

Trade name: Phorbol 12,13-Dibutyrate Product Number: P-4833 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 Substance Class Identifier: Mutagen Fatal if swallowed, inhaled, or absorbed through the skin Causes irritation of the eye, skin, and respiratory tract, and may cause allergic respiratory and skin reactions 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: (1*a*R,1*b*S,4*a*R,7*a*S,7*b*S,8*R*,9*R*,9*a*S)-1,1*a*,1*b*,4,4*a*,5,7*a*,7*b*,8,9decahydro-4*a*,7*b*-dihydroxy-3-(hydroxymethyl)-1,1,6,8-tetramethyl-5-oxo-9*aH*cyclopropa[3,4]benz[1,2-*e*]azulene-9,9*a*-diyl ester butanoic acid Synonyms: 12,13-Di-*O*-butyrylphorbol, PDBu Hazardous Ingredient: Phorbol 12,13-Dibutyrate CAS Registry Number: 37558-16-0 Molecular Weight: 504.61 Molecular Formula: C₂₈H₄₀O₈

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

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After skin contact: flush with copious amounts of water; remove contaminated clothing and shoes; call a physician

After eye contact: 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

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 liquidbinding 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: Odor: none Melting point/Melting range: not determined Danger of explosion: none Page 3 of 4 Solubility in / Miscibility with water: not soluble Solvent content: Organic solvents: soluble in DMSO or ethanol

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

SECTION 11. TOXICOLOGICAL INFORMATION:

RTECS #: EK7767000 Acute toxicity: intracerebral toxicty (TDLo): 404 ng/kg (mouse) Primary irritant effect: On the skin: causes skin irritation; fatal if absorbed through the skin On the eye: causes eye irritation Inhalation: causes respiratory tract irritation; fatal if inhaled Ingestion: fatal 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: Toxic solid, organic, n.o.s. (Phorbol 12,13-dibutyrate), Class: 6.1, Packing group: III IMDG: Toxic solid, organic, n.o.s. (Phorbol 12,13-dibutyrate), Class: 6.1, Packing group: III IATA: Toxic solid, organic, n.o.s. (Phorbol 12,13-dibutyrate), Class: 6.1, Packing group: III

SECTION 15. REGULATORY INFORMATION:

Code letter and hazard designation of product: T+: Highly Toxic; Xi: Irritant EU Risk And Safety phrases: S22: Do not breathe dust S24/25: Avoid contact with skin and eyes

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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 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)

R26/27/28: Very toxic by inhalation, in contact with skin and if swallowed R36/37/38: Irritating to eyes, respiratory system and skin

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 Proviowed: July 1, 2010

Reviewed: July 1, 2019