

Brefeldin A

Cat#: orb61003 (MSDS)

SECTION 1. IDENTIFICATION:

Trade name: Brefeldin A
Product Number: orb61003

SECTION 2. HAZARD(S) IDENTIFICATION:

Hazard Description: Toxic
Substance Class Identifier: Drug; Mutagen
Toxic if swallowed
Harmful if inhaled, swallowed, or absorbed through the skin
Exposure may cause irritation to eyes, skin, mucous membranes, and upper respiratory tract
Signal Word: Warning

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*R*,2*E*,6*S*,10*E*,11*a**S*,13*S*,14*a**R*)-1,6,7,8,9,11*a*,12,13,14,14*a*decahydro-1,13-dihydroxy-6-methyl-4*H*-cyclopent[*f*]oxacyclotridecin-4-one
Synonyms: Acotoxin, BFA, Cyanein, Decumbin
Hazardous Ingredient: Brefeldin A
CAS Registry Number: 20350-15-6
Molecular Weight: 280.36
Molecular Formula: C₁₆H₂₄O₄

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: 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 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: off-white

Odor: none

Melting point/Melting range: 196-207 °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 50-100 µM; buffers, serum, or other additives may increase or decrease the aqueous solubility

Solvent content: none

Organic solvents: soluble in DMSO at 100 mg/mL; soluble in ethanol at 25 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

SECTION 11. TOXICOLOGICAL INFORMATION:

RTECS #: GY8410000

Acute toxicity: intraperitoneal toxicity (LD50): 250 mg/kg (mouse)

Primary irritant effect:

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

On the eye: may be an irritant

Inhalation: harmful if inhaled; may cause irritation of mucous membranes and upper respiratory tract

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

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

R68: Possible risk of irreversible effects

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