



Material Safety Data Sheet

Product Category: <1% of Brefeldin A in methanol
Revision date: December 2010
Emergency telephone number:
Center for Disease Control: (404) 633-5313

1. IDENTIFICATION OF SUPPLIER / SUBSTANCE

eBioscience 888-810-6168
10255 Science Center Drive.
San Diego, CA
92121
USA

2. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear liquid
Physical State: Liquid
Color: Colorless
Odor: Alcohol-like - weak odor
Flash Point: 12°C (53.60°F)
Auto igniting: Product is not self-igniting.

3. HAZARDS IDENTIFICATION

General Hazard Information: May cause central nervous system depression.
Cannot be made non-poisonous.

Most Important Hazards:
Applicable Risk Phases: R26: Very toxic by inhalation
R27: Very toxic in contact with skin
R28: Very toxic if swallowed

NFPA Rating: Health = 2
(Scale 0-4) Fire = 1
Reactivity = 1

Physical/Health Effects:

May cause central nervous system depression.
Cannot be made non-poisonous.

Principle routes of exposure:

Oral: Eye contact: Skin contact: Ingestion: Inhalation:	May be fatal or cause blindness if swallowed. Causes eye irritation. May cause blindness. Harmful if absorbed through the skin. May be fatal or cause blindness if swallowed. Vapor harmful. Harmful if swallowed, inhaled, or absorbed through the skin. Causes respiratory tract irritation.
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Carcinogenicity Rating:

Component(s)	CAS Number	NTP:	IARC:	California Proposition 65 List
Brefeldin A	67-56-1	Not listed	Not listed	Not listed

Signs and Symptoms: Unknown

Medical Conditions Aggravated by Exposure: Target Organs: Eyes, nervous system, optic nerve.

4. COMPOSITION / COMPONENT INFORMATION

Components	CAS Number	Weight %	(TWA-8 hr)	(STEL):	(Ceiling Limit Value):	PBOEL
Brefeldin A	67-56-1	3 µg.ml	Unknown	Unknown	Unknown	Unknown

Exposure Limits: None known

5. FIRST AID MEASURES

Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

Ingestion: Potential for aspiration if swallowed. Get medical aid immediately. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If vomiting occurs naturally, have victim lean forward.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.



Skin Contact:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

Protection of First-Aid Providers

Wear self-contained breathing apparatus and protective garments appropriate for site conditions.

6. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. Water may be ineffective. For large fires, use water spray, fog or alcohol-resistant foam. DO NOT use straight streams of water.

Extinguishing media which must not be used for safety reasons:

DO NOT use straight streams of water.

Special Protective Equipment for Firefighters: Wear self-contained breathing apparatus and protective garments appropriate for site conditions.

Specific Hazards:

Flammable liquid and vapor.

Hazardous Combustion Products:

Unknown

Explosion Limits:

Lower:

6.0 vol %

Upper:

31.00 vol %

7. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Wear safety glasses, lab coat, apron or other protective clothing to minimize contact.

Environmental Precautions:

Waste disposal must be in accordance with appropriate US, Federal, State and International regulations.

Methods for Clean-Up:

Wipe up with adsorbent material. Place in suitable container for prompt disposal.

8. HANDLING AND STORAGE

Handling

Technical Measures/Precautions:

Wear safety glasses, lab coat, apron or other protective clothing to minimize contact.

Storage

Technical Measures/Storage Conditions:

Stable under normal temperatures and pressures.

Incompatible Products:

Oxidizing agents, reducing agents, acids, alkali metals, potassium, sodium, metals as powders (e.g. hafnium, raney nickel), acid anhydrides, acid chlorides, powdered aluminum, powdered magnesium.

9. EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure Limits:

Unknown

Engineering controls:

Provide adequate local exhaust ventilation.

Personal Protective Equipment:

Eye Protection:

Wear safety glasses. Eyewash stations and deluge showers should be available.

Hand Protection:

Wear chemical resistant gloves.

Skin and Body Protection

Wear lab coat, apron or other protective clothing to minimize contact.

Respiratory Protection:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Other General Precautions:

Observe appropriate laboratory hygiene practices. Avoid contact with skin or eyes. Wash any exposed body area thoroughly with soap and water after completion of activities involving product.

10. STABILITY AND REACTIVITY

Chemical Stability:

Stable under normal temperatures and pressures.

Hazardous Polymerization:

N/A

Hazardous Decomposition Products:

Carbon monoxide, carbon dioxide, formaldehyde.

Materials to Avoid:

Reactive with oxidizing agents, acids, alkalis.

Conditions to Avoid:

Excess heat, incompatible materials, strong oxidizers.

11. TOXICOLOGICAL INFORMATION

The toxicological properties of this product have not been fully investigated.



Acute effects

Oral: May be fatal or cause blindness if swallowed.
Eye irritation: Causes eye irritation. May cause blindness.
Skin irritation: Harmful if absorbed through the skin.
Inhalation: Vapor harmful. Harmful if swallowed, inhaled, or absorbed through the skin. Causes respiratory tract irritation.

Chronic effects

Target Organs: Eyes, nervous system, optic nerve.

Oral: No data available.
Inhalation: No data available.
Dermal: No data available.

12. ECOLOGICAL INFORMATION

Eco-Toxicity Effects: No data available.
Aquatic Toxicity Effects: No data available.
Mobility: No data available.
Persistence/degradability: No data available.
Bioaccumulation: No data available.
Degradation: No data available.

13. DISPOSAL CONSIDERATIONS

Waste from Residual/Unused Products: Waste disposal must be in accordance with appropriate US, Federal, State and International regulations.
Contaminated Packaging: Waste disposal must be in accordance with appropriate US, Federal, State and International regulations.
Methods for Clean-Up: Dispose of absorbent material used to clean spills in accordance with local, state and federal regulations.

14. TRANSPORT INFORMATION

Product not regulated by DOT, IATA/ICAO, IMO/IMDG, ADR/RID, or TDG.

15. REGULATORY INFORMATION

Indication of Danger:



List applicable R-Phrases

- R26: Very toxic by inhalation
- R27: Very toxic in contact with skin
- R28: Very toxic if swallowed

List applicable S- Phrases

- S24: Avoid contact with skin.
- S25: Avoid contact with eyes.
- S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- S28A After contact with skin, wash immediately with plenty of water.

SARA (311,312) Hazard Class

Immediate Health:	Not known
Delayed Health:	Not known
Fire:	Not known
Sudden Release of Pressure Hazard:	Not known
Reactivity:	Not known

TSCA inventory List: Not listed

WHMIS

WHMIS Trade Secret:	Not available
WHMIS Hazard Class:	Not available

Canada DSL Inventory List: Listed on DSL: Not listed

Notes:

1. SARA= Superfund Amendments and the Reauthorization Act.
2. CERCLA= Comprehensive Environmental Response, Compensations and Liability Act.
3. FIFRA= Federal Insecticide, Fungicide and Rodenticide Act.
4. TSCA= Toxic Substance Control Act.
5. WHMIS=Canadian Workplace Hazardous Material Information System.
6. This product has been classified in accordance with the hazards criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. OTHER INFORMATION

This data sheet contains changes from the previous version in section(s):

Additional Advice: None



Literary Reference:

None

MSDS Formats:

North American Format- U.S. and Canada
This Material Safety Data Sheet was prepared in accordance with OSHA 29 CFR 1910.1200.

European Format
This material Data Sheet was prepared in accordance with 93/112/EEC.

Test of R Phrases

Unknown

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