

MATERIAL SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 Version 1.0

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GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION

Product name: BERBERINE HCl

2. HAZARDS IDENTIFICATION

This substance is not classified as dangerous according to Directive 67/548/EEC.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: BERBERINE HCl; BERBERINE CHLORIDE HYDRATE;
6-DIHYDRO-9,10-DIMETHOXY-BENZO[G]-1,3-BENZODIOXOLO[5,6-A] QUINOLIZI NIUM, CHLORIDE;
BERBERINE CHLORIDE; BERBERINE; BERBERINE HYDROCHLORIDE N-HYDRATE

Formula: $C_{20}H_{18}ClNO_4$

Molecular Weight: 371.81 g/mol

CAS No.: 633-65-8

4. FIRST AID MEASURES

Eye Contact: No known effect on eye contact, rinse with water for a few minutes.

Skin Contact:

After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases, and groin. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

Serious Skin Contact: Not available.

Inhalation: Allow the victim to rest in a well-ventilated area. Seek immediate medical attention.

Serious Inhalation: Not available.

Ingestion:

Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt, or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Serious Ingestion: Not available.

5. FIRE AND EXPLOSION DATA

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: Not available.



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Flash Points: Not available.

Flammable Limits: Not available.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not available.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog, or foam. Do not use water jet.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

6. ACCIDENTAL RELEASE MEASURES

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

7. HANDLING AND STORAGE Precautions:

Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not breathe dust.

Storage:

Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume, or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection: Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.



9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance: Solid Powder

Odor: Characteristic.

Taste: Not available.

Molecular Weight: 371.81

Color: Yellow

Boiling Point: No data

Melting Point: Not available.

Critical Temperature: Not available.

Specific Gravity: Not available.

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water.

Solubility: 1mg/ml at 25°C

10. STABILITY AND REACTIVITY DATA

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Not available.

Incompatibility with various substances: Not available.

Corrosivity: Not available.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: No.

11. TOXICOLOGICAL INFORMATION

Routes of Entry: Absorbed through skin. Eye contact. Inhalation. Ingestion.

Toxicity to Animals:

LD50: 295.86mg/kg. (oral mouse)

LC50: Not available.

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant), of inhalation (lung irritant).

Special Remarks on Toxicity to Animals: Not available.



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Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

12. ECOLOGICAL INFORMATION

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: Not available.

Special Remarks on the Products of Biodegradation: Not available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal:

Waste must be disposed of in accordance with federal, state, and local environmental control regulations

14. TRANSPORT INFORMATION

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

15. OTHER REGULATORY INFORMATION

Federal and State Regulations: No products were found.

Other Regulations: Not available.

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC): This product is not classified according to the EU regulations.

HMIS (U.S.A.):

Health Hazard: 1

Fire Hazard: 1 Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 1 Flammability: 1 Reactivity: 0 Specific hazard:

Protective Equipment:

Gloves.

Lab coat.

Dust respirator. Be sure to use an approved/certified respirator or equivalent. Safety glasses.

16. Other Information



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Zone, Yantai City, Shandong Province, 265200, China

References: Not available.

Other Special Considerations: Not available.

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