

Berberine

Revision: 11/03/2011

Supercedes Revision: 08/27/2005

Fire Fighting Instructions:	As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.
Flammable Properties and Hazards:	No data available.
Hazardous Combustion Products:	No data available.
Suitable Extinguishing Media:	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers.
Unsuitable Extinguishing Media:	A solid water stream may be inefficient.

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled:	Avoid release into the environment. Avoid raising and breathing dust, and provide adequate ventilation. As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves). Transfer to a chemical waste container for disposal.
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7. Handling and Storage

Hazard Label Information:	Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation. Wash thoroughly after handling.
Precautions To Be Taken in Handling:	Avoid breathing (dust, vapor, mist, gas). Avoid prolonged or repeated exposure.
Precautions To Be Taken in Storing:	Keep tightly closed. Store at correct temperature.
Other Precautions:	Hygroscopic.

8. Exposure Controls/Personal Protection

Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TLV	Other Limits
1. Berberine	633-65-8	No data.	No data.	No data.

Protective Equipment Summary - Hazard Label Information:	Compatible chemical-resistant gloves Eye wash station in work area Lab coat Safety glasses Safety shower in work area Vent Hood
Respiratory Equipment (Specify Type):	NIOSH approved respirator, as conditions warrant.
Eye Protection:	Safety glasses
Protective Gloves:	Compatible chemical-resistant gloves
Other Protective Clothing:	Lab coat
Engineering Controls (Ventilation etc.):	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
Work/Hygienic/Maintenance Practices:	Do not take internally. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Wash thoroughly after handling.

9. Physical and Chemical Properties

Physical States:	<input type="checkbox"/> Gas <input type="checkbox"/> Liquid <input checked="" type="checkbox"/> Solid
Melting Point:	No data.
Boiling Point:	No data.
Autoignition Pt:	No data.
Flash Pt:	No data.
Specific Gravity (Water = 1):	No data.

Vapor Pressure (vs. Air or mm Hg):	No data.
Vapor Density (vs. Air = 1):	No data.
Evaporation Rate:	No data.
Solubility in Water:	~1 mg/ml
Percent Volatile:	No data.
Formula:	C ₂₀ H ₁₈ CINO ₄
Molecular Weight:	371.80
Appearance and Odor:	A crystalline solid

10. Stability and Reactivity

Stability:	Unstable [] Stable [X]
Conditions To Avoid - Instability:	No data available.
Incompatibility - Materials To Avoid:	strong oxidizing agents
Hazardous Decomposition Or Byproducts:	carbon dioxide carbon monoxide hydrogen chloride gas nitrogen oxides
Possibility of Hazardous Reactions:	Will occur [] Will not occur [X]
Conditions To Avoid - Hazardous Reactions:	No data available.

11. Toxicological Information

The toxicological effects of this product have not been thoroughly studied.

Toxicity Data: Oral LD50 (mouse): >29,586 mg/kg; Oral LD50 (rat): >15,000 mg/kg;

Chronic Toxicological Effects:

Investigated as a tumorigen and mutagen.

Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here.

See actual entry in RTECS for complete information.

Berberine RTECS Number: DR9866400

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. Berberine	633-65-8	n.a.	n.a.	n.a.	n.a.

12. Ecological Information

Avoid release into the environment.

Runoff from fire control or dilution water may cause pollution.

13. Disposal Considerations

Waste Disposal Method:	Dispose in accordance with local, state, and federal regulations.
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14. Transport Information

LAND TRANSPORT (US DOT)

DOT Proper Shipping Name Not dangerous goods.

LAND TRANSPORT (European ADR/RID)

ADR/RID Shipping Name Not dangerous goods.

AIR TRANSPORT (ICAO/IATA)

ICAO/IATA Shipping Name Not dangerous goods.

Additional Transport Information: Transport in accordance with local, state, and federal regulations.

15. Regulatory Information**European Community Hazard Symbol codes**

No data available.

European Community Risk and Safety Phrases

S24/25 - Avoid contact with skin and eyes.

S37/39 - Wear suitable gloves and eye/face protection.

US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. Berberine	633-65-8	No	No	No	No

Other US EPA or State Lists

Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
1. Berberine	633-65-8	No	No	Inventory	No

Regulatory Information Statement:

This SDS was prepared in accordance with Regulation (EC) No.1272/2008 and European Directive 67/548/EEC as amended.

16. Other Information**Company Policy or Disclaimer**

For research use only, not for human or veterinary use.

DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

N.A.=Not available, N.P.=Not applicable, N.D.=Not determined, N.E.=Not established, N.R.=Not required