


WARD'SNatural Science Establishment
P.O. Box 92912
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(716) 359-2502Ward's Natural Science Establishment, Ltd.
1840 Mattawa Avenue
Mississauga, Ontario L4X 1K1**MATERIAL SAFETY DATA SHEET**MSDS No. 88 120
Effective Date July 1, 1986**SECTION I NAME**

Product	BILE SALTS
Chemical Synonyms	Ox Bile; Ox gull powder.
Formula	Natural product.
Unit(s) Size	30g. to 2.5Kg.
C.A.S. No.	Not listed.

24 HOUR EMERGENCY ASSISTANCE

	CHEMTREC 800-424-9300		<table border="1"><tr><td>Health</td><td>UK</td></tr><tr><td>Fire</td><td>1</td></tr><tr><td>Reactivity</td><td>1</td></tr></table>		Health	UK	Fire	1	Reactivity	1
	Health	UK								
	Fire	1								
	Reactivity	1								
Day 716-226-6177										
Night 716-334-4222										
NFPA										
HAZARD RATING										
LEAST	SLIGHT	MODERATE	HIGH	EXTREME						
0	1	2	3	4						

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

Principal Hazardous Component(s)	%	TLV Units
Not considered a hazardous mixture.		None established.
Contains: 1 gram of sodium choleate per		
8 grams Bile salts.		

SECTION III PHYSICAL DATA

Melting Point (°F)	Decomposes.	Specific Gravity (H₂O = 1)	Unknown.
Boiling Point (°F)	Decomposes.	Percent Volatile by Volume (%)	Negligible as solid.
Vapor Pressure (mm Hg)	Negligible as solid.	Evaporation Rate (= 1)	Not applicable.
Vapor Density (Air = 1)	Unknown.		
Solubility in Water	Very soluble.		
Appearance and Odor	Yellowish-green powder; pungent odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Not applicable	Flammable Limits in Air % by Volume	Unknown	Lower	Upper
Extinguisher Media	Any media suitable for extinguishing supporting fire.				

SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH-approved, self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Dust may constitute an explosion hazard. Fire or excessive heat may produce hazardous decomposition products; can react vigorously with oxidizing materials.

D.O.T. NON-REGULATED.

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

SECTION V HEALTH HAZARD DATA**Threshold Limited Value**

None established.

Effects of Overexposure

INHALATION: Low hazard for usual laboratory handling. **SKIN:** Low hazard for usual laboratory handling. **EYES:** No specific hazard known. Contact may cause transient irritation. **INGESTION:** Expected to be a low hazard.

Emergency and First Aid Procedures

INHALATION: None should be needed. Remove to fresh air. **SKIN:** Wash with soap and water. **EYES:** Flush eyes with plenty of water for at least 15 minutes. If irritation persists get medical attention. **INGESTION:** None should be needed.

SECTION VI REACTIVITY DATA

Stability	Unstable	Conditions to Avoid	Excessive temperature and heat.
	Stable	X	
Incompatibility (Materials to avoid)	Strong oxidizing materials.		
Hazardous Decomposition Products	Combustion will produce carbon dioxide and probably carbon monoxide and smoke.		
Hazardous Polymerization	Conditions to Avoid		
May Occur	Will Not Occur		
	X		

SECTION VII SPILL OR LEAK PROCEDURES**Steps to be taken in case material is released or spilled**

Sweep up and place in a suitable container.

Waste Disposal Method

Dispose of in an approved incinerator.

Discharge, treatment, or disposal may be subject to federal, state, or local laws.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type)	None should be needed in normal laboratory handling. If dusty conditions prevail work in fume hood or wear a NIOSH-approved dust mask.			
Ventilation	Local Exhaust	Recommended.	Special	No.
	Mechanical (General)	Recommended.	Other	No.
Protective Gloves	Rubber.		Eye Protection	Chemical safety glasses.
Other Protective Equipment	Goggles, smock, apron, proper gloves, ventilation hood, eye wash station.			

SECTION IX SPECIAL PRECAUTIONS**Precautions to be Taken in Handling and Storing**Store in a cool, dry place.
Wash thoroughly after handling.**Other Precautions**

Read label on container before using.

There is insufficient data in the published literature to assign complete numerical HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS) ratings and laboratory protective equipment for this product. Special precautions must be used in storage, use and handling.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Rev. No. No. 1 Date 1/12/87 Approved *Alfonso A. Picorelli* Chemical Safety Coordinator

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees.

WARD'S
Natural Science Establishment, Inc.

IMPORTANT
MATERIAL SAFETY DATA SHEET

READ CAREFULLY BEFORE USING CHEMICAL

OSHA requires that this form be kept on file.

MSDS No. 38-2180