



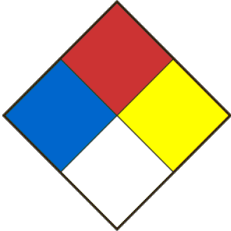
Centre Anti-Poison pour le Québec: (800) 463-5060
 Tél. (Qc): (418) 660-8666 / 800-890-8666
 Fax. (Qc): (418) 660-8998

SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier RIBOFLAVIN		Product Use Laboratory use	
Chemical formula C ₁₇ H ₂₀ N ₄ O ₆		Product code RP-0106	Molar weight 376,37
Chemical name / Commercial name / Synonymous RIBOFLAVINE, RIBOFLAVIN, 7,8-DIMETHYL-10-D-RIBITYLISOPLOXAZINE, 7,8-DIMETHYL-10-D-RIBITYLISOPLOXAZINE, RIBOFLAVINEQUINONE, 1-DEOXY-1-(3,4-DIHYDRO-7,8-DIMETHYL-2,4-DIOXOBENZO(G)PTERIDIN-10(2H)-YL)-D-RIBITOL			
Supplier's name Laboratoire MAT		Address-Street 610, Adanac Street	
City Québec		Province Québec	
Postal code G1C 7B7	Internet www.labmat.com	Phone number 418-660-8666 / 800-890-8666	
Emergency phone	CANUTEC: 613-996-6666	CENTRE ANTI-POISON DU QUÉBEC 800-463-5060	
Date SDS 4/24/2020	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Not a hazardous substance according to WHMIS 2015
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)
	Health 1 Fire 1 Reactivity 1 Special danger

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
RIBOFLAVINE	83-88-5	<=100

SECTION 04 - FIRST AID MEASURES

Eye contact	Wash eyes with large amounts of water for at least 15 minutes while holding eyelids apart to rinse eyes. If irritation persists, seek medical attention.
Skin contact	Wash skin with plenty of water for at least 15 minutes. Remove soiled clothing. If irritation persists, seek medical attention.
Inhalation	Move the unwell person to the fresh air. If breathing is difficult, give oxygen. Consult a physician.
Ingestion	Rinse mouth with water. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	Ref. section 11.
Immediate medical attention and special treatment, if necessary	In case of medical consultation, keep this sheet available.
General advice	Show this safety data sheet to the doctor in attendance.

SECTION 05 - FIREFIGHTING MEASURES

Flammability	No
Ignition conditions	Non flammable. May be combustible at high temperatures.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, or dry chemical.
Unsuitable extinguishing media	Data not available.
Hazardous combustion / decomposition products	Carbon oxides, Nitrogen oxides (NO _x).
Special fire and explosion hazards	Keep product and empty containers away from heat and sources of ignition. May react violently with incompatible products (Ref Section 10).
Special protective equipment and precautions for firefighters	Discard incompatible substances if this can be done without risk. Firefighters should be equipped with standard protective equipment, fireproof clothing, face mask, gloves, protective boots and, where appropriate, self-contained breathing apparatus.

SECTION 06 - ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up / Personal precautions, protective equipment	Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment. Pick up with a shovel or broom, taking care not to scatter dust. Dispose of residues in a container provided for the disposal of hazardous materials. Do not let product enter drains.
---	--

SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Keep in a dry place. Store in a well-ventilated area.
Methods of handling	Provide appropriate exhaust ventilation at places where dust is formed. Avoid dust formation. Avoid contact with the skin, eyes and clothes. Avoid ingestion and inhalation.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Components	CAS-No.	Control	Value	Basis
Riboflavin	83-88-5	TLV, TWA, STEL	No data available	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TLV, TWA, STEL	No data available	Canada. British Columbia OEL
		TLV, TWA, STEL	No data available	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants

Ventilation	Use fan.
Respiratory	If the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply.
Gloves	Handle with gloves.
Eyes	Safety goggles with safety shutters.
Shoes	Safety shoes.
Clothing	Labcoat.
Engineering control	Have safety showers and eyewash stations in the workplace in case of an emergency and a ventilation system to maintain the level of concentrations in the air below the exposure limit values.

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid.
Appearance	Poudre cristalline jaune à jaune-orange.-
Odour	inodore.
Odour threshold	Data not available
pH	5.5-7.2 à 0.07g/l eau (20°C).
Melting point / Freezing point	290°C (dec)
Initial boiling point	Data not available
Boiling range	Data not available
Flash point	Data not available
Evaporation rate	Data not available
Flammability	No
Lower flammable / Explosive limit	Data not available
Upper flammable / Explosive limit	Data not available
Vapour pressure	8.92E-22 mm Hg (25 °C)-
Vapour density	Data not available
Relative density	1.4g/ml
Solubility	Très légèrement soluble dans l'eau, l'alcool et les solutions de chlorure de sodium d'isotonique; soluble dans les solutions d'alcalins; insolubles dans l'éther et le chloroforme..
Partition coefficient water/n-octanol	-1.46-
Auto-ignition temperature	Data not available
Decomposition temperature	290°C
Viscosity	Data not available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Non-reactive under normal conditions.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Stable under normal conditions.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	Once dry, it is not significantly affected by the scattered light, but in solution, the light induces a very rapid deterioration, especially in the presence of alkalis. Moisture, sunlight and extreme temperatures. Avoid dust formation. Incompatible products.
Incompatible material	Strong oxidizing agents, Reducing agents, Bases, Calcium, metallic salts.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. Carbon oxides, Nitrogen oxides (NOx).

SECTION 11 - TOXICOLOGICAL INFORMATION

RIBOFLAVIN

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	May cause eye irritation.
- Skin	May cause skin irritation.
- Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Acute toxicity (Ingestion)	May be harmful if swallowed.
Chronic exposure effects / symptoms	Not expected to present a significant hazard if used under the intended conditions.
DL50 (specify species and route of entry)	LD50 Oral - Rat - > 10,000 mg/kg LD50 Dermal: Data not available.
CL50 (specify species and route of entry)	CL50 inhalation - Rat > 5.4 mg/L - 4h

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	Toxicity to fish: CL50: 96 Hr - (mg/L): >10000 Brachydanio rerio: LC50 >10000 mg/L/96h Toxicity to daphnia and other aquatic invertebrates: CE50: 48 Hr: Daphnia magna: (mg/L): >47.4
Persistence and degradability	Insoluble in water. Persistence is unlikely.
Bioaccumulative potential	Data not available.
Mobility in soil	Unlikely mobility in the environment due to its low solubility in water. Very slightly soluble in water. (84.7 mg / L) (25 ° C) Henry's Law constant: 3.59E-19 atm-m ³ / mole (25 ° C)
Other adverse effects	Do not throw residues in the sewer.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of contents / container in accordance with local / regional / national / international regulations / or contact a specialist waste disposal company.
Contaminated Packaging	Dispose of as unused product.

SECTION 14 - TRANSPORT INFORMATION

UN Number	N/R
UN Proper shipping name	
Transport hazard class(es)	
Packing group	
Limited quantity index	
ERAP Index	
Special precautions	

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Not a hazardous substance according to WHMIS 2015
---------------------	---

SECTION 16 - OTHER INFORMATION

Further information

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. It does not represent any guarantee of the properties of the product. Laboratoire MAT Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

Last Update: 4/24/2020