SAFETY DATA SHEET

SECTION 01 - IDENTIFICATION

Product Identifier	PICRIC ACID (MOISTERED~35%)
Other identification (Chemical name, Commercial name, Synonymous)	PICRIC ACID; 1,3,5-TRINITROPHÉNOL; 2,4,6-TRINITROPHÉNOL; 2-HYDROXY-1,3,5-TRINITROBENZENE; ACIDE PICRONITRIQUE; ACIDE CARBOZOTIQUE; ACIDE NITROXANTHIQUE; TRINITRATE DE PHÉNOL
Product code	PR-0259
Chemical formula	$(NO_2)_3C_6H_2OH$
Molar weight	229.11
Recommended use and Restrictions on use	For laboratory, school, commercial or industrial use. Not for medical or household use. Do not use for medical, food or household purposes.
Supplier	LABORATOIRE MAT 610, rue Adanac Québec Québec G1C 7B7 418-660-8666 Mon-Fri 8h-16h www.labmat.com labmat@labmat.com
Emergency phone	418-660-8666 Mon-Fri 8h-16h CENTRE ANTI-POISON DU QUÉBEC 800-463-5060
Date SDS	2026-03-11

SECTION 02 - HAZARDS IDENTIFICATION

WHIMS CANADA

- Flammable solids - category 1
- Acute toxicity - Dermal - category 3
- Acute toxicity - Oral - category 3
- Acute toxicity - Inhalation - category 3
- Respiratory or skin sensitization - Skin sensitize - category 1

PICTOGRAMS

Signal Word

DANGER

Hazards statements (H)

- Flammable solid
- Toxic in contact with skin
- Toxic if swallowed
- Toxic if inhaled
- May cause an allergic skin reaction

Precautionary statements (P)

- Keep away from heat, sparks, open flames, hot surfaces. — No smoking.
- Ground and bond container and receiving equipment.
- Use explosion-proof equipment.
- Wear protective gloves (nitrile, butyle, neoprene), protective clothing and eye and face protection.
- In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish.
- IF ON SKIN: Wash with plenty of water
- Call a POISON CENTER or a doctor or if you feel unwell.
- Take off immediately all contaminated clothing and wash it before reuse.
- Store locked up.
- Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company.
- Rinse mouth.
- Avoid breathing mists, gases, vapors and other fumes, or the product itself.
- Use only outdoors or in a well-ventilated area.
- IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
- Call a POISON CENTER or a physician.
- Store in a well ventilated place. Keep container tightly closed.
- Contaminated work clothing should not be allowed out of the workplace.
- If skin irritation or a rash occurs: Get medical attention.

Other dangers

NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)

Health	2
Fire	4
Reactivity	4
Special danger	

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Component	No. CAS	% Weight
Picric acid	88-89-1	60-65%
Water (as stabilizer)	7732-18-5	Balance

SECTION 04 - FIRST AID MEASURE

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 contaminated 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	If the person is conscious, give water to drink. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	Main symptoms of high exposure: The product is a corrosive material. The corrosive effect will outweigh the toxicity for the concentrated product. Chemical burns of the skin, eyes and respiratory and digestive mucous membranes. Skin sensitizer. Desquamation. Redness. Fatigue. Gastrointestinal disorders. Dizziness. Headaches. Nausea and vomiting. Neurological damage. Diarrhea. Yellow stained hair and skin. Vision blurs. Ref. section 11.
Immediate medical attention and special treatment, if necessary	Treat according to symptoms. Show this sheet to the attending physician.

SECTION 05 - FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, or carbon dioxide.
Unsuitable extinguishing media	Do not use dry chemical.
Combustion products	Hazardous combustion products formed under fire conditions: Carbon oxides. Nitrogen oxides (NOx).
Specific hazards of the dangerous product	The dry product is explosive. Containers exposed to fire or its heat may explode. May explode if shocked or rubbed. 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. Treat the product like an explosive.

SECTION 06 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency measures	Evacuate personnel to safe areas. When handling, wear appropriate safety equipment (reference Section 8 for protective equipment to be used). Ensure a good ventilation. Use NIOSH cartridge respiratory protection if necessary or for larger spills. Cut off all sources of ignition. Avoid dust formation. Avoid breathing dust.
Methods and materials for containment and cleaning up	Flush area with large amounts of water. Dispose of residues in a container for disposal of hazardous materials. When handling, wear suitable safety equipment. Discharge into the environment must be avoided.

SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Store in a cool, dry, and well-ventilated place. Keep container tightly closed and store away from heat and incompatible products (ref. section 10). Keep moist with water. Do not store in metal containers. We sould not keep picric acid that is more than two years old.
Methods of handling	Avoid contact withh eyes, skin and clothing. Avoid ingestion and inhalation. Wear personal protective equipment (ref. section 8) when handling. Always ensure good ventilation. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Keep away from heat and sources of ignition. Apply the usual standard hygiene rules: Wash your hands after use. Do not eat or drink during use.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

WORKPLACE CONTROL PARAMETERS

Components	CAS-No.	Control parameters	Value	Basis
Picric Acid	88-89-1	TWA	0.100000 mg/m3	Canada. British Columbia OEL
Remarks	Sensitizer: sensitization critical effect			
		TWAEV	0.100000 mg/m3	Canada. Ontario OELs
	Skin			
		STEV	0.300000 mg/m3	Canada. Ontario OELs
	Skin			
		TWA	0.1 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWAEV	0.1 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	0.100000 mg/m3	Ontario Table of Occupational Exposure Limits made under the Occupational Health and Safety Act.
	Skin			
		STEL	0.300000 mg/m3	Ontario Table of Occupational Exposure Limits made under the Occupational Health and Safety Act.
	Skin			

Data origin	Sigma-Aldrich (Millipore Sigma)
Gloves	Handle with protective gloves. Suggested material: Nitrile. Butyl. Neoprene. The type, thickness and length of the glove must be chosen according to the use, the concentration of the product, as well as the duration of use. Replace gloves regularly for better protection.
Eyes	Safety goggles with safety shutters.
Shoes	Use safety shoes.
Clothes	Labcoat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Engineering control	Use fan. 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
Color	Yellow
Odour	Data not available
Odour threshold	Data not available
Melting point and freezing point	121-123°C
Boiling point	Explosion at 300°C
Flammability	Yes
Lower flammable / Explosive limit	Data not available
Upper flammable / Explosive limit	Data not available
Flash point	150 °C
Auto-ignition temperature	300 °C
Decomposition temperature	Data not available
pH	Data not available
Kinematic viscosity	Not applicable
Solubility	1 g in 12 mL alcohol, 10 mL benzene, 35 mL chloroform, and 65 mL ether ; Very soluble in acetone ; In water, 1.27X10+4 mg/L @25 deg C
Partition coefficient water/n-octanol	log Pow: 1.33@15mmHg
Vapour pressure	7.5X10-7 mm Hg at 25 deg C
Relative density	1.763g/cm3
Vapour density	7.90 (air=1)
Particle characteristics	Powder submerged in water

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Flammable product, may ignite with source of ignition, if temperature above flash point. May react violently with incompatible substances. Explosive in the dry state. Fine dusts of organic materials have the potential to form a combustible or explosive mixture with air if confined in a small space and subjected to an ignition source.
Chemical stability	Sensitive to heat. Contains the following stabilizer: Water (>=33%).
Possibility of hazardous reactions	May react violently with incompatible substances. Explosive when dry.
Conditions to avoid	Do not allow to dry. Explosive when dry. Chocs sensitive. Sensitive to friction. Heat, flames and sparks. Avoid the build-up of static electricity. Avoid contact with incompatible materials and extreme temperatures.
Incompatible materials	Strong bases. Reducing agents. Strong oxidizers. Some metals. Iron. Zinc. Copper. And their salts.
Hazardous decomposition products	Carbon monoxide (CO), Carbon dioxide (CO2). Nitrogen oxides (NOx).

SECTION 11 - TOXICOLOGICAL INFORMATION

PICRIC ACID (MOISTERED~35%)

Routes of exposure	Ingestion, inhalation and skin contact.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Severe burns and destruction of ocular tissue that can lead to corneal ulceration and blindness.
- Skin	Skin sensitizer. Dermatitis. Severe burns and tissue ulcerations. Desquamation. Yellow stained hair and skin.
- Inhalation	Headaches. Nausea and vomiting.
Acute toxicity (Ingestion)	Nausea and vomiting. Headaches. Diarrhea. Damage to the kidneys. Damage to the liver.
Chronic exposure effects / symptoms	Skin sensitization. Nervous system damage. Kidney damage. Liver damage. Yellow stained hair and skin. Weakness. Digestive problems. Myalgia. Hematuria (blood in the urine). Dermatitis. Conjunctivitis.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 200mg/kg. LD50 Dermal - Data not available.
CL50 (specify species and route of entry)	LC50 Inhalation - Data not available.

SECTION 12 - ECOLOGICAL INFORMATION

PICRIC ACID (MOISTERED~35%)

Ecotoxicity	Data not available.
Persistence and degradability	Data not available.
Bioaccumulative potential	Data not available.
Mobility in soil	Data not available.
Other adverse effects	Data not available.

SECTION 13 - DISPOSAL CONSIDERATIONS

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

SECTION 14 - TRANSPORT INFORMATION

UN Number	1344
UN Proper shipping name	TRINITROPHÉNOL HUMIDIFIÉ avec au moins 30% (masse) d'eau
Transport hazard class(es)	Solides inflammables 4.1
Packing group	I
Limited quantity index	0 kg
ERAP Index	-
Special precautions	10, 38, 62

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA

- Flammable solids - category 1
- Acute toxicity - Dermal - category 3
- Acute toxicity - Oral - category 3
- Acute toxicity - Inhalation - category 3
- Respiratory or skin sensitization - Skin sensitize - category 1

SECTION 16 - OTHER INFORMATION

CNESST: Commission des normes, de l'équité et de la santé et sécurité au travail
NIH: National institute of health (U.S. Naltional Library of Medecine)
ECHA: Agence Européenne de Chimie
ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
VECD: Valeur d'exposition courte durée
VEMP: Valeur d'exposition moyenne pondérée
CMRG : Chemical Manufacturer's Recommended Guidelines
OSHA : United States Department of Labor - Occupational Safety and Health Administration
TLV : Threshold limit value
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling
RSST: Règlement sur la santé et sécurité au travail (Québec)
INRS: l'Institut national de recherche et de sécurité pour la prévention des accidents du travail et des maladies professionnelles (France)

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.

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