



Centre Anti-Poison pour le Québec: (800) 463-5060
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SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier IODINE 0.02N		Product Use Laboratory use	
Chemical formula -		Product code IS-0802	Molar weight 253,81
Chemical name / Commercial name / Synonymous IODINE			
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 4/30/2019	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Respiratory or skin sensitization - Skin sensitize category 1
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)
	Health 1 Fire 0 Reactivity 0 Special danger

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Iode	7553-56-2	0.25
Iodure de potassium	7681-11-0	0.41
Eau	7732-18-5	Balance

SECTION 04 - FIRST AID MEASURES

Si contact avec yeux	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.
Si contact avec peau	Wash skin with plenty of water for at least 15 minutes. Remove soiled clothing. If irritation persists, seek medical attention.
Si inhalé	Move the unwell person to the fresh air. If breathing is difficult, give oxygen. Consult a physician.
Si avalé	If the person is conscious, give water to drink. Never give anything by mouth to an unconscious person. Consult a physician.
Symptômes et effets les plus importants (aigus et retardés)	Ref. section 11.
Prise en charge médicale immédiate ou traitement spécial, si nécessaire	In case of medical consultation, keep this sheet available.
Conseils généraux	Show this safety data sheet to the doctor in attendance.

SECTION 05 - FIREFIGHTING MEASURES

Inflammabilité	No
Conditions d'allumage	Not flammable or combustible.
Agents d'extinction appropriés	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Agents d'extinction inappropriés	Data not available.
Produits de combustion / décomposition dangereux	Hazardous decomposition products formed under fire conditions. - Hydrogen iodide. Iodine vapors.
Dangers spéciaux de feu et d'explosion	When concentrated, the product reacts according to the following characteristics: Iodine can form explosive compounds sensitive to shock or heat in contact with strong reducing agents. Mixing iodine with antimony and / or ammonia can cause an explosion. Reacts violently with: acetaldehyde, acetylene, acetylides, aluminum + diethyl ether, aluminum-titanium alloys + heat, ammonium hydroxide, antimony, silver azide, bromine pentafluoride, carbides, cesium oxide, chlorine and chlorine trifluoride, fluorine and fluorine oxide, reactive metals (aluminum powder, magnesium, potassium, sodium, zinc), phosphorus, sodium hydride and sodium phosphinate. Potassium iodide may react violently with the following products: bromine pentafluoride, charcoal + ozone, chlorine trifluoride and disazo salts. May react violently with incompatible products (Ref Section 10).
Équipements de protection spéciaux / précautions spéciales pour pompiers	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

Méthodes et matériaux pour confinement et nettoyage, précautions individuelles équipement de protection et mesures d'urgence	Evacuate personnel to safe areas. Absorb the product with sand or vermiculite. Dilute residues with water, clean and rinse. Ensure a good ventilation of the premises. Dispose of residues in a container for disposal of hazardous materials. When handling, wear suitable safety equipment. Use breathing apparatus if necessary. Do not let product enter drains.
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SECTION 07 - HANDLING AND STORAGE

Conditions d'entreposage	Store in a cool, dry place. Keep container tightly closed and store away from heat, moisture, and incompatible products. Keep container tightly closed in a dry and well-ventilated place. Air, light, and moisture sensitive.
Méthode et équipement de manutention	Do not use metal utensils to handle iodine as it attacks steel. Bottle in glass containers only. Always open containers slowly to allow any excess pressure to vent. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust or vapor is formed. Wear personal protective equipment when handling. Always ensure good ventilation. Transport according to TDG (ref Section 14)

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Iodine	7553-56-2	C	0.100000 ppm	Canada. British Columbia OEL
		CEV	0.100000 ppm 1.000000 mg/m ³	Canada. Ontario OELs
		(c)	0.100000 ppm 1.000000 mg/m ³	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required			
		C	0.100000 ppm 1.000000 mg/m ³	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
A substance which may not be recirculated in accordance with section 108				
		TWA	0.010000 ppm	Canada. British Columbia OEL
Vapour and aerosol.				
		STEL	0.100000 ppm	Canada. British Columbia OEL
Vapour and aerosol.				
		CEIL	0.100000 ppm 1.000000 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
		TWA	0.010000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		TWA	0.010000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	0.100000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	0.100000 ppm	USA. ACGIH Threshold Limit Values (TLV)
Components	CAS-No.	Value	Control parameters	Basis
Potassium iodide	7681-11-0	No data available	TLV, TWA, STEL	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		No data available	TLV, TWA, STEL	Canada. British Columbia OEL
		No data available	TLV, TWA, STEL	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants

Origine des données	Sigma-Aldrich.
Ventilation	Fan.
Respiratoire	If work under the hood is not possible, or if the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply.
Gants	Handle with gloves.
Yeux	Safety goggles with safety shutters.
Chaussures	Safety shoes.
Vêtements	Labcoat.
Contrôle d'ingénierie	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

État physique	Liquid.
Appearance	Brun-orange foncé-
Odeur	âcre.
Odour threshold	Data not available
pH	~ 5.
Melting point / Freezing point	Data not available
Initial boiling point	Data not available
Boiling range	Data not available
Flash point	Data not available
Evaporation rate	Data not available
Inflammabilité	No
Lower flammable / Explosive limit	Data not available
Upper flammable / Explosive limit	Data not available
Vapour pressure	Data not available
Solubilité	Soluble dans l'eau.
Vapour density	Data not available
Relative density	1.00g/ml
Partition coefficient water/n-octanol	Data not available
Auto-ignition temperature	Data not available
Decomposition temperature	Data not available
Viscosity	Data not available

SECTION 10 - STABILITY AND REACTIVITY

Réactivité	Non-reactive under normal conditions.
Stabilité chimique	Stable under recommended storage conditions. May decompose on exposure to air and moisture.
Risque de réactions dangereuses	Stable under normal conditions.
Conditions d'instabilité (Incluant sensibilité aux chocs / décharge statique / vibrations)	Heat, flames and sparks. This product may decompose if exposed to light or by the combined action of air and moisture.
Substances incompatibles	When pure, the products react with the following products: Strong reducing agents, Nickel, Strong acids, and its alloys, Steel (includes all types and surface treatments), Aluminum, Alkali metals, Brass, Magnesium, Zinc, Cadmium, Copper. Pewter - tin oxides. Iodine reacts in contact with the following products: rubber, plastics, iron and ferrous salts, Sulfur compounds, antimony salts, arsenites, bromides, chlorides, iodides, thiocyanates, ferrous salts, hypophosphites, morphine salts, oils, creosote, phosphates, tannin, tartrates. Acetylene, acetaldehyde, strong oxidizers, strong reducers agents, ammonia, alcohols, acetylides, aluminum + diethyl ether, aluminum-titanium alloys + heat, ammonium hydroxide, antimony, silver azide, bromine pentafluoride, carbides, cesium oxide, chlorine and chlorine trifluoride, fluorine and fluorine oxide, metal powders and reactive metals (aluminum powder, magnesium, potassium, sodium, zinc, copper), phosphorus, sodium hydride and sodium phosphinate. The mixture of iodine, antimony and ammonia causes an explosion.
Produits de décomposition dangereux	Hazardous decomposition products formed under fire conditions. - Hydrogen iodide. Iodine vapors. - Potassium oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

IODINE

Premières voies d'absorption	Ingestion, inhalation, skin and eyes.
Effets / symptômes de l'exposition aiguë :	By exposure route below.
- Yeux	Severe irritation and burns that may cause permanent eye damage.
- Peau	Severe irritation and tissue burns. Repeated exposure may cause a skin reaction characterized mainly by erythematous lesions.
- Respiration	Spasms, irritation and inflammation of the nose, throat and lungs. Edema of the larynx and bronchi. Chemical pneumonitis and pulmonary edema that can lead to death. Inhalation may cause disruption of the thyroid gland.
- Ingestion	Burns and ulcerations of the mouth, throat, esophagus and abdominal wall. Dysphagia, thyroid disorders, abdominal pain, cramps, diarrhea, melena, hematemesis, headache, dizziness, salivation, runny nose, parotitis, weakness, weight loss, convulsions, vascular collapse, unconsciousness, coma and can lead to death. Amounts of 2 to 3 g were fatal
Effets / symptômes de l'exposition chronique	Burning sensation, dermatitis, conjunctivitis, cutaneous allergic reactions, thyroid disorders (disruption of hormonal secretion), nervous disorders, chest pain, cough, dyspnea, rhinitis, bronchitis, headache, vertigo, irritability, hypersensitivity, epiphora (excessive flow of tears), erythema, intense thirst, salivation, fatigue, weakness, weight loss and loss of appetite, seizures, nausea and vomiting. Prolonged exposure to this product is likely to cause embryotoxic effects in humans.
DL₅₀ (spécifier l'espèce et voie d'entrée)	LD50 Oral - Rat - 315 mg/kg. LD50 Dermal - Rabbit - 1425 mg/kg.
CL₅₀ (spécifier l'espèce et voie d'entrée)	LC50 Inhalation - Rat - 4h - > 4.588 mg / l Note: cough Respiratory condition

POTASSIUM IODIDE

Premières voies d'absorption	Ingestion, inhalation, skin and eyes.
Effets / symptômes de l'exposition aiguë :	By exposure route below.
- Yeux	Irritation and burns that may cause permanent eye damage.
- Peau	Irritation and dermatitis. May cause an allergic and inflammatory reaction of the skin in the form of erythematous or vesicular lesions.
- Respiration	Irritation of the mucous membranes and respiratory tract. Nervous disorders, respiratory allergy, pain in chest, cough, dyspnea, headache, dizziness, fever, nausea and vomiting.
- Ingestion	Irritation of the mucous membranes. Target organ: thyroid. Abdominal pain, thyroid disorders, cramps, diarrhea, headache, dizziness, sweating, salivation, fever, convulsions, nausea and vomiting.
Effets / symptômes de l'exposition chronique	Burning sensation, dermatitis, conjunctivitis, respiratory and skin allergies, pain in the chest, cough, dyspnoea, laryngitis, headache, vertigo, tearing, confusion, irritability, erythema, fatigue, fever, anemia, weight loss and loss of appetite, seizures, nausea and vomiting. Prolonged exposure may cause reproductive abnormalities in humans.
DL₅₀ (spécifier l'espèce et voie d'entrée)	LD50 Oral - Rat - 2779 mg/kg LD50 Dermal - Rat - 2000 mg/kg
CL₅₀ (spécifier l'espèce et voie d'entrée)	LC50 - Inhalation - Data not available.

SUMMARY

Acute exposure effects / Symptoms:	By exposure routes below.
Ingestion	To our knowledge, the product has not been fully evaluated
Inhalation	To our knowledge, the product has not been fully evaluated
Skin	To our knowledge, the product has not been fully evaluated
Eyes	To our knowledge, the product has not been fully evaluated
Chronic exposure effects / Symptoms:	To our knowledge, the product has not been fully evaluated
ETA Mix (Estimated Acute Toxicity)	LD50 Oral:>5000 mg/kg - Rat LD50 Dermal: >5000 mg/kg - Undefined species LC50 Inhalation: >1000 mg/L - 4h -Rat

SECTION 12 - ECOLOGICAL INFORMATION

Écotoxicité	Iodine: Toxicity to fish: LC50 Oncorhynchus mykiss (rainbow trout) -1.7mg / l -96.0 h. Toxicity to daphnia and other aquatic invertebrates: CE 50-Daphnia magna (Great Daphnia) -0.2mg / l-48h Toxicity to algae: Growth inhibition EC50 - Desmodesmus subspicatus (green algae) - 0.13mg/L. Potassium iodide: Toxicity to fish: Static test: LC50 - Danio rerio (zebra fish) - > 100 mg/l - 96.0 h.
Persistence et dégradation	Data not available.
Potentiel de bioaccumulation	Data not available.
Mobilité dans le sol	Probable mobility due to its solubility in water.
Autre effets nocifs	Toxic to aquatic life. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13 - DISPOSAL CONSIDERATIONS

Mesures pour l'élimination	Dispose of contents / container in accordance with local / regional / national / international regulations / or contact a specialist waste disposal company.
Emballage contaminé	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	Respiratory or skin sensitization - Skin sensitize category 1
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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.

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