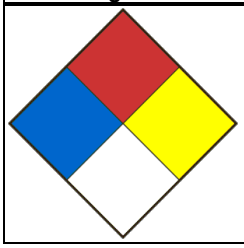
Centre Anti-Poison pour le Québec: (800) 463-5060
Tél. (Qc): (418) 660-8666 / 800-890-8666
Fax. (Qc): (418) 660-8998

SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier SODIUM CYANIDE 5%W/V		**Product Use** Laboratory use	
Chemical formula NaCN		**Product code** SS-0305	**Molar weight** 49,01
Chemical name / Commercial name / Synonymous SODIUM CYANIDE, CYANIDE OF SODIUM, HYDROCYANIC ACID SODIUM SALT, CYANOGRAN, PRUSSIATE OF SODA			
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 6/22/2020	**SDS Prepared by** Laboratoire MAT	**E-Mail** labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Specific Target Organ Toxicity - Repeated exposure category 1 Acute toxicity - Oral category 3 Acute toxicity - Dermal category 3 Acute toxicity - Inhalation category 2
Signal Word	DANGER
Hazards statements (H)	H372 Causes damage to organs through prolonged or repeated exposure. H301 Toxic if swallowed. H311 Toxic in contact with skin. H330 Fatal if inhaled.
Precautionary statements (P)	P260 Do not breathe dust / fume / gas / mist / vapours / spray. P264 Wash the areas of the body that have been in contact with the product after handling. P270 Do no eat, drink or smoke when using this product. P314 Get medical advice/attention if you feel unwell. P501 Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/protective clothing/eye protection/face protection. P284 Wear respiratory protection. P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P310 Immediately call a POISON CENTER or doctor/physician. P312 Call a POISON CENTER or doctor/physician if you feel unwell. P320 Specific treatment is urgent (see section 4 on this SDS on this label). P321 Specific treatment (see section 4 of the SDS and on this label). P330 Rinse mouth. P361 + P364 Take off immediately all contaminated clothing and wash it before reuse. P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up.
PICTOGRAMS	
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)
	**Health** 4 **Fire** 0 **Reactivity** 1 **Special danger**

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Cyanure de sodium	143-33-9	5

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	If the person is conscious, rinse the mouth with water. Do NOT induce vomiting. 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	Not flammable or combustible.
Suitable extinguishing media	Dry powder or dry sand.
Unsuitable extinguishing media	Do not use water or carbon dioxide as this releases hydrogen cyanide (very toxic and flammable).
Hazardous combustion / decomposition products	Hazardous decomposition products formed under fire conditions. Carbon oxides, Nitrogen oxides (NOx). - Sodium oxides. Hydrogen cyanide gas.
Special fire and explosion hazards	When concentrated, the product reacts according to the following characteristics: May react violently with incompatible products (Ref Section 10). Sodium cyanide can form explosive compounds of a spontaneous nature with chlorates, nitrates and the mixture of nitrogen trichloride and ammonia. Direct contact of water with this product may cause decomposition to hydrogen cyanide, a very toxic gas with flammable vapors. Releases a deadly gas (hydrogen cyanide) in contact with acids as well as certain acid salts. Violent reactions with fluoride, magnesium and nitrites. Do not allow run-off from fire fighting to enter drains or water courses.
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 / Personnal precautions, protective equipment	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. 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 container tightly closed in a dry and well-ventilated place. Never allow product to get in contact with water during storage. Do not store near acids. Do not store in aluminum containers.
Methods of handling	Avoid contact with the skin, eyes and clothes. Avoid formation of dust and aerosols. Use a hood preferably. Do not breathe dust. 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	No.-CAS	Control parameters	Value	Basis
SODIUM CYANIDE	143-33-9	(c)	5.000000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks: The substance can be easily absorbed through the intact skin.				
		CEV	5.000000 mg/m3	Canada. Ontario OELs
Skin				
		TWA	10.000000 ppm 11.000000mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
A substance whose recirculation is prohibited in accordance with section 108. Skin (percutaneous)				
		C	5.000000 mg/m3	Canada. British Columbia OEL
Contributes significantly to overall dermal exposure.				
		C	5.000000 mg/m3	Canada. British Columbia OEL
Contributes significantly to overall dermal exposure.				
		C	5.000000 mg/m3	Canada. British Columbia OEL
Contributes significantly to overall dermal exposure.				
		(c)	5 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
The substance can be easily absorbed through the intact skin.				
		P	10 ppm 11 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
A substance whose recirculation is prohibited in accordance with section 108. Skin (percutaneous)				
		C	5 mg/m3	Canada. British Columbia OEL
Contributes significantly to overall dermal exposure				

Data source	Sigma-Aldrich.
Ventilation	Use fan.
Respiratory	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. Keep an emergency bag-valve mask in the workplace in the event of suffocation.
Gloves	Handle with gloves.
Eyes	Safety goggles with safety shutters.
Shoes	Use safety shoes.
Clothing	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	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	Liquid.
Appearance	Liquide incolore.
Odour	Amande amère..
Odour threshold	
pH	Solution aqueuse saturée = pH 11-12.
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
Flammability	No
Lower flammable / Explosive limit	Data not available
Upper flammable / Explosive limit	Data not available
Vapour pressure	Data not available
Solubility	Très soluble dans l'eau. Peu soluble dans l'alcool.
Vapour density	Data not available
Relative density	
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

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)	Avoid contact with incompatible materials. Carbon dioxide.
Incompatible material	Strong oxidizing agents (nitric acid, perchloric acid, peroxides, chlorates and perchlorates), acids and certain acid salts, alkaloids, carbon dioxide, fluorine, chloral hydrate, iodine , magnesium, metal salts, nitrates, nitrites, permanganates, water, heat and moisture.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. Carbon oxides, Nitrogen oxides (NOx). - Sodium oxides. Hydrogen cyanide (hydrocyanic acid).

SECTION 11 - TOXICOLOGICAL INFORMATION

SODIUM CYANIDE

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Severe irritation and may result in inflammation of the conjunctiva.
- Skin	Irritation and dermatitis. The intense absorption of this product through the skin can lead to chemical asphyxia (cessation of aerobic oxygen use) and death.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Sensation of oppression, erythema, cough, dyspnea, headache, dizziness, confusion, weakness, nausea and vomiting, tremors, palpitations, rapid breathing, convulsions, paralysis, unconsciousness, respiratory arrest and death. May be fatal if inhaled.
Acute toxicity (Ingestion)	Irritation and burning of the mucous membranes. Constriction of the pharynx and respiratory tract, low blood pressure, convulsions, paralysis, loss of consciousness, respiratory arrest and rapid death. May be fatal if swallowed and enters airways.
Chronic exposure effects / symptoms	Burning sensation, dermatitis, conjunctivitis, nervous disorders, cough, dyspnea, headache, dizziness, confusion, irritability, tearing, erythema, sweating, salivation, change in taste and smell, weakness, cyanosis, tachycardia, hyperthyroidism, loss of weight and loss of appetite, seizures, nausea and vomiting. May cause reproductive system problems. May harm fertility Risk of causing cyanosis characterized by bluish tinted skin: Any exposure may result in death.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 4.7 mg/kg. LD50 Dermal - Rabbit - 10.4 mg/kg.
CL50 (specify species and route of entry)	CL50 inhalation - Rat 0.16 mg/L - 1 h.

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: 98.7 mg/kg - Rat LD50 Dermal: 218.4 mg/kg - Rabbit LC50 Inhalation: 3.4 mg/L - 1h - Rat

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	Sodium cyanide: LC50 - Daphnia magna (Water flea) - 0.09 mg/L - 96 h. CL50 - Tilapia mossambica - Static test: 0.04 mg/L - 96 h. LC50 - Pimephales promelas (fathead minnow) - Flow-through test - 0.0712-0.0936 mg/L - 96 h. LC50 - Oncorhynchus mykiss (rainbow trout) - Flow-through test - 0.0558 - 0.0586 mg/L. Static test: 0.0391 - 0.0548 mg/L - 96 h. CE50 - Nitzshia closterium (algaes) - 0.051 mg/L - 72 h. CE50 - Gammarus pseudolimnaeus - 0.17 mg/L - 96 h.
Persistence and degradability	Soluble in water. Persistence is unlikely based on the information provided.
Bioaccumulative potential	Data not available.
Mobility in soil	Probable mobility in the environment due to its solubility in water.
Other adverse effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

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	3414
UN Proper shipping name	CYANURE DE SODIUM EN SOLUTION
Transport hazard class(es)	6.1 Toxic substances
Packing group	II
Limited quantity index	0,1L
ERAP Index	1000
Special precautions	-

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Specific Target Organ Toxicity - Repeated exposure category 1 Acute toxicity - Oral category 3 Acute toxicity - Dermal category 3 Acute toxicity - Inhalation category 2

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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