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SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier 1,4-DICHLOROENZENE		Product Use Laboratory use	
Chemical formula C ₆ H ₄ Cl ₂		Product code DR-0110	Molar weight 147
Chemical name / Commercial name / Synonymous P-DICHLOROENZÈNE, PARA-DICHLOROENZÈNE, 1,4-DICHLOROENZENE, P-DICHLOROENZENE, PARA-DICHLOROENZENE, P-CHLOROPHENYL CHLORIDE			
Supplier's name Laboratoire MAT		Address-Street 610, Adanac Street	
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Emergency phone	CANUTEC: 613-996-6666	CENTRE ANTI-POISON DU QUÉBEC 800-463-5060	
Date SDS 6/25/2020	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Serious eye damage/ Eye irritation category 2A Carcinogenicity category 2
Signal Word	WARNING
Hazards statements (H)	H319 Causes serious eye irritation. H351 Suspected of causing cancer.
Precautionary statements (P)	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P264 Wash the areas of the body that have been in contact with the product after handling. P280 Wear protective gloves/protective clothing/eye protection/face protection. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308 + P313 IF exposed or concerned: Get medical advice/attention. P337 + P313 If eye irritation persists: Get medical advice/attention. P405 Store locked up. P501 Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company.
PICTOGRAMS	
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)
	Health 2 Fire 2 Reactivity 0 Special danger

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
1,4-Dichlorobenzène	106-46-7	<=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	If the person is conscious, rinse the 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	Heat, sparks and open flame.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	Data not available.
Hazardous combustion / decomposition products	Hazardous decomposition products formed under fire conditions. Carbon oxides. Hydrogen chloride gas. Chlorine gas.
Special fire and explosion hazards	Containers may explode when heated. Do not allow run-off from fire fighting to enter drains or water courses. 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 / Personnel precautions, protective equipment	Evacuate personnel to safe areas. Cut off all sources of ignition. 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. Discharge into the environment must be avoided.
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SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Keep container tightly closed in a dry and well-ventilated place. Keep away from sources of ignition - No smoking. Take measures to prevent the accumulation of electrostatic charges.
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. Do not use tools that produce sparks. Keep away from heat and sources of ignition.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
1,4 DICHLOROBENZENE	106- 46-7	TWA	10 ppm 60 mg/m ³	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWA	10 ppm	Canada. British Columbia OEL
Remarks	IARC «2B» refers to substances that are considered to be possibly carcinogenic in humans.			
		VEMP	20 ppm 120 mg/m ³	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
	A carcinogenic effect demonstrated in animals. For these substances, the result of carcinogenicity studies in animals are not necessarily transferable to humans.			

Data source	Sigma-Aldrich.
Ventilation	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	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	Solid.
Appearance	Plaques/feuilles blanches.
Odour	Forte et caractéristique.
Odour threshold	Data not available
pH	Donnée non disponible..
Melting point / Freezing point	54-56°C
Initial boiling point	174.1°C à 1013 hPa°C
Boiling range	Data not available
Flash point	66°C
Evaporation rate	Data not available
Flammability	No
Lower flammable / Explosive limit	Data not available
Upper flammable / Explosive limit	Data not available
Vapour pressure	0.53 hPa à 25°C.
Vapour density	5.08 (air=1)-
Relative density	1.241g/cm ³
Solubility	Insoluble dans l'eau. Soluble dans l'alcool, l'éther, le benzène, le chloroforme et le disulfure de carbone.
Partition coefficient water/n-octanol	3.37 à 25°C-
Auto-ignition temperature	640°C
Decomposition temperature	>173°C
Viscosity	0.839 mPa à 55°C.

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)	Heat, flames and sparks.
Incompatible material	Strong oxidizing agents. Metals. Heat and humidity.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. Carbon oxides. - Hydrogen chloride gas Gaseous chlorine.

SECTION 11 - TOXICOLOGICAL INFORMATION

1,4-DICHLOROBENZENE

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Causes serious eye irritation.
- Skin	Irritation.
- Inhalation	Irritation of the mucous membranes and the respiratory system.
Acute toxicity (Ingestion)	To our knowledge, the product has not been fully studied.
Chronic exposure effects / symptoms	Is recognized as a possible carcinogen for humans (class 2B) by IARC. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. P-Dichlorobenzene can induce an allergic and inflammatory reaction of the skin in the form of erythematous lesions.
DL50 (specify species and route of entry)	LD50 Oral - Rat - > 2 000 mg/kg. LD50 Dermal - Rabbit - > 2 000 mg/kg.
CL50 (specify species and route of entry)	CL50 inhalation - Rat >5 mg/kg - 4 h

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	CL50- Salmo gairdneri (rainbow trout) 1.12 mg/L - 96 h - dynamic test EC50 - Daphnia magna (Water flea) - 0.7 mg/L - 48 h - static test Growth inhibition EC50 - Scenedesmus capricornutum (freshwater algae) 1.6 mg/L - 96 h LC50 - Pimephales promelas (fathead minnow) - 18-50 mg/L - 96 h - static test LC50 - Lepomis macrochirus - 3.9-4.8 mg/L - 96 h - static test
Persistence and degradability	Aerobic biodegradability - Duration of exposure 28 d Result: 30% - Not readily biodegradable.
Bioaccumulative potential	Bioaccumulation Jordanella floridae - 5 d - 2.68 µg / l (1,4-Dichlorobenzene); Bioconcentration factor (BCF): 296
Mobility in soil	Data not available.
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	3077
UN Proper shipping name	MATIÈRE DANGEREUSE DU POINT DE VUE DE L'ENVIRONNEMENT, SOLIDE, N.S.A.
Transport hazard class(es)	9 Miscellaneous dangerous goods/hazardous material
Packing group	III
Limited quantity index	5kg
ERAP Index	-
Special precautions	16, 99 (1,4-DICHLOROBENZENE)

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Serious eye damage/ Eye irritation category 2A Carcinogenicity category 2
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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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