SAFETY DATA SHEET

SECTION 01 - IDENTIFICATION

Product Identifier	XYLENE (PARA)
Other identification (Chemical name, Commercial name, Synonymous)	1,4-Dimethylbenzene; p-Xylene.
Product code	XP-0919
Chemical formula	$C_6H_4(CH_3)_2$
Molar weight	106.17
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	2025-07-08

SECTION 02 - HAZARDS IDENTIFICATION

WHIMS CANADA

- Skin corrosion/irritation - Skin irritation - category 2
- Aspiration hazard - category 1
- Flammable liquids - category 3
- Serious eye damage/eye irritation - Eye irritation - category 2
- Acute toxicity - Dermal - category 4
- Acute toxicity - Inhalation - category 4
- Specific target organ toxicity - Single exposure - category 3

PICTOGRAMS

Signal Word

DANGER

Hazards statements (H)

- Causes skin irritation
- May be fatal if swallowed and enters airways
- Flammable liquid and vapour
- Causes serious eye irritation
- Harmful in contact with skin
- Harmful if inhaled
- May cause respiratory irritation

Precautionary statements (P)

- Wash thoroughly after handling.
- IF ON SKIN: Wash with plenty of water
- Specific treatment (see section 4 on the SDS on this label).
- If skin irritation occurs: Get medical attention.
- Take off contaminated clothing and wash before re-use.
- Wear protective gloves (Viton®, nitrile, butyl), protective clothing and eye and face protection.
- IF SWALLOWED: Immediately call a POISON CENTER or a physician.
- Do NOT induce vomiting.
- Store locked up.
- Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company.
- Keep away from heat, sparks, open flames, hot surfaces. — No smoking.
- Keep container tightly closed.
- Ground and bond container and receiving equipment.
- Use explosion-proof equipment.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse with water.
- In case of fire: Use CO2, dry chemical, or foam to extinguish.
- Store in a well-ventilated place. Keep cool.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If eye irritation persists get medical attention.
- Call a POISON CENTER or a doctor or if you feel unwell.
- 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.
- Store in a well ventilated place. Keep container tightly closed.

Other dangers

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

Health	2
Fire	3
Reactivity	0
Special danger	

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Component	No. CAS	% Weight
p-xylene	106-42-3	<=100

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: Skin irritation. Irritatation of the respiratory system. Pulmonary troubles. Headaches. Nausea and vomiting. Dizziness. Death. 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
Carbon dioxide (CO2), Foam, Dry powder.

Unsuitable extinguishing media
Data not available.

Combustion products
Hazardous combustion products formed under fire conditions: Carbon oxides. Carbon dioxide.

Specific hazards of the dangerous product
Highly concentrated vapors in the air can ignite or even explode if exposed to an intense ignition source. Vapours can travel up to the ignition source and cause a backfire. Keep the product and empty containers away from heat and ignition sources. 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

Personal precautions, protective equipment and emergency measures
Evacuate personnel to safe areas. Cut off all sources of ignition. Use anti-spark tools and anti-explosion equipment. Avoid the accumulation of charges electrostatic. 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. Beware of vapors accumulating to form explosive concentrations.

Methods and materials for containment and cleaning up
Absorb the product with sand or vermiculite. Dilute residues with water, clean and rinse. Dispose of residues in a container for disposal of hazardous materials. Discharge into the environment must be avoided.

SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Keep container tightly closed in a dry, well-ventilated place. Keep container tightly closed and store away from heat, moisture, and incompatible products (ref. section 10). Keep away from sources of ignition - No smoking. Take measures to prevent the accumulation of electrostatic charges. Protect from the sun's rays.
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. 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
p-Xylene	106-42-3	TWA	100 ppm- 434 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		STEL	150 ppm - 651 mg/m3	
		TWA	100ppm - 434 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		STEL	150 ppm - 651 mg/m	
		TWA STEL	100ppm 150ppm	Canada. Ontario Reg.833
		TWA STEL	100ppm 150ppm	Canada. British Columbia OEL

Data origin	Sigma-Aldrich (Millipore Sigma)
Respiratory	If work under the hood is not possible, or if the permissible levels are exceeded, use NIOSH cartridge respiratory protection, or an air-supplied respirator.
Gloves	Handle with protective gloves. Suggested material: Nitrile. Butyl. Viton® (Fluoroelastomer). 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	Liquid.
Color	Colorless.
Odour	Data not available.
Odour threshold	Data not available.
Melting point and freezing point	12 - 13 °C (54 - 55 °F).
Boiling point	138 °C 280 °F.
Flammability	Yes.
Lower flammable / Explosive limit	1.1 % (v).
Upper flammable / Explosive limit	7 % (v).
Flash point	27 °C (81 °F) - closed cup.
Auto-ignition temperature	529.0 °C (984.2 °F) à 1,013 hPa.
Decomposition temperature	Data not available.
pH	Data not applicable.
Kinematic viscosity	Data not available.
Solubility	146 g/l at 25 °C (77 °F) - partially soluble in water.
Partition coefficient water/n-octanol	log Pow: 3.15 à 20 °C (68 °F) .
Vapour pressure	124.1 hPa à 2.6 °C (36.7 °F).
Relative density	0.861 g/cm3 à 20 °C (68 °F).
Vapour density	Data not available.
Particle characteristics	Data not applicable.

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.
Chemical stability	Sensitive to heat. Stable under recommended storage conditions.
Possibility of hazardous reactions	Flammable liquid and vapours. Vapours can form explosive mixtures with air when heated. May react violently with incompatible substances.
Conditions to avoid	Heat, flames and sparks. Avoid the build-up of static electricity. Avoid contact with incompatible materials and extreme temperatures.
Incompatible materials	Can form an explosive mixture with: Strong oxidizers. Concentrated sulfuric acid. Nitric acid. Uranium hexafluoride. Sulfur. Rubber.
Hazardous decomposition products	Carbon monoxide (CO), Carbon dioxide (CO2).

SECTION 11 - TOXICOLOGICAL INFORMATION

XYLENE (PARA)

Routes of exposure	Ingestion, inhalation, skin and eye contact.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation.
- Skin	Irritation. Redness. Desquamation. Cracks.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Depression of the central nervous system. Headaches. Nausea and vomiting. Dizziness. Ataxia. Asthenia. Confusion. Loss of appetite. The sharper inhalation can lead to : Liver damage. Can lead to death.
Acute toxicity (Ingestion)	Pulmonary involvement.
Chronic exposure effects / symptoms	Pulmonary edema. Headache. Fatigue. Anxiety. Feeling of intoxication. Irritability. Balance disorders. Sleep disorder. Memory disorders. May cause damage to: Liver. Kidney. Cardiovascular disorders. Pulmonary troubles.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 3,523 mg/kg. LD50 Dermal - Data not available.
CL50 (specify species and route of entry)	LC50 Inhalation - Rat - 4 h - 24.4 - 25.7 mg/l.

SECTION 12 - ECOLOGICAL INFORMATION

XYLENE (PARA)

Ecotoxicity	Toxicity to fish: Static Test LC50 - LC50 - Oncorhynchus mykiss (rainbow trout) - 2.60 mg/l - 96 h. Flow-through test - NOEC - Danio rerio (poisson zèbre). 0.71 mg/l - 35 jr. Toxicity to daphnia and other aquatic invertebrates: Daphnia magna (Water flea) - 35.50 - 63.10 mg/l - 48 h. Toxicity to algae: Static test EC50 - Pseudokirchneriella subcapitata - 4.36 mg/l - 73 h. Toxicity to bacteria: Static test - NOEC - activated sludge. 16.2 mg/l - 28 h.
Persistence and degradability	Biodegradability aerobic - Duration of exposure 28 days - Result: 98% - Easily biodegradable.
Bioaccumulative potential	Bioconcentration factor (BCF): 7.4 - 18.5.
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	1307
UN Proper shipping name	XYLÈNES
Transport hazard class(es)	Liquides inflammables 3
Packing group	III
Limited quantity index	5 L
ERAP Index	-
Special precautions	-

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA

- Skin corrosion/irritation - Skin irritation - category 2
- Aspiration hazard - category 1
- Flammable liquids - category 3
- Serious eye damage/eye irritation - Eye irritation - category 2
- Acute toxicity - Dermal - category 4
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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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