SAFETY DATA SHEET

SECTION 01 - IDENTIFICATION

Product Identifier	2-HEXANONE
Other identification (Chemical name, Commercial name, Synonymous)	Butyl methyl ketone; Hexan-2-one; Méthyl butyl cétone; Butylmethylcetone; Methyl n-butyl ketone; methyl n-butyl cetone.
Product code	HP-5441
Chemical formula	$C_6H_{12}O$
Molar weight	100.16
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	2025-09-10

SECTION 02 - HAZARDS IDENTIFICATION

WHIMS CANADA

- Flammable liquids - category 3
- Acute toxicity - Dermal - category 1
- Acute toxicity - Oral - category 1

PICTOGRAMS

Signal Word

DANGER

Hazards statements (H)

- Flammable liquid and vapour
- Fatal in contact with skin
- Fatal if swallowed

Precautionary statements (P)

- 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.
- Wear protective gloves (Viton®, nitrile, butyl), protective clothing and eye and face protection.
- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse with water.
- In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish.
- Store in a well-ventilated place. Keep cool.
- Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company.
- Do not get in eyes, on skin, or on clothing.
- Wash thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- IF ON SKIN: Wash with plenty of water
- Immediately call a POISON CENTER or a physician.
- Specific treatment (see section 4 on the SDS on this label).
- Take off immediately all contaminated clothing and wash it before reuse.
- Store locked up.
- Rinse mouth.

Other dangers

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

Health	3
Fire	3
Reactivity	0
Special danger	

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Component	No. CAS	% Weight
2-Hexanone	591-78-6	<=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. 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, eye and respiratory system irritation. Redness. Depression of the central nervous system. Headaches. Dizziness. Nausea. 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, dry chemical or carbon dioxide.
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. 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
2-Hexanone	591-78-6	TWA TWA STEL STEL (SKIN)	5ppm 20 mg/m3 10ppm 40 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks				
		TWA STEL (skin)	5ppm 10ppm	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA TWA STEL (skin)	1ppm 4 mg/m3 10ppm	Canada. Ontario Reg.833
		TWA STEL (skin)	5ppm 10ppm	Canada. British Columbia OEL

Data origin	Fisher Scientific
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	acetone like odor.
Odour threshold	Odor Threshold Low: 0.06 [ppm] Odor Threshold High: 0.08 [ppm].
Melting point and freezing point	-55.5 °C,-71 °F.
Boiling point	127.2 °C, 261 °F at 760 mmHg.
Flammability	Inflammable liquid.
Lower flammable / Explosive limit	1.2%vol.
Upper flammable / Explosive limit	8.00%vol.
Flash point	25 °C (closed cup),95 °F (open cup).
Auto-ignition temperature	795 °F.
Decomposition temperature	Data not available.
pH	Data not applicable.
Kinematic viscosity	0.75mm2/s.
Solubility	1.4 wt% in water at 20 °C, Sol in acetone; miscible in ethanol and ether.
Partition coefficient water/n-octanol	log Pow: 1.38.
Vapour pressure	2 mmHg at 68 °F ; 3.8 mmHg at 77 °F.
Relative density	0.830 at 20 °C/20 °C.
Vapour density	3.45.
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. May ignite on contact with oxidants if heat and oxygen are present in sufficient quantities.
Chemical stability	Sensitive to heat.
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	Avoid the build-up of static electricity. Heat, flames and sparks.
Incompatible materials	Oxydants. Strong bases.
Hazardous decomposition products	Carbon monoxide (CO), Carbon dioxide (CO2).

SECTION 11 - TOXICOLOGICAL INFORMATION

2-HEXANONE

Routes of exposure	Ingestion, inhalation, skin and eye contact.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation.
- Skin	Irritation. Cracks. Desquamation. Redness.
- Inhalation	Depression of the central nervous system. Headaches. Drowsiness. Dizziness. Nausea and vomiting.
Acute toxicity (Ingestion)	Damage to the central nervous system. Abdominal pain. Diarrhea.
Chronic exposure effects / symptoms	Nervous system damage. Muscle weakness. Weight loss. Numbness. Nervous system disorders.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 2 590 mg/kg. LD50 Dermal - Rabbit - 4 800 mg/kg.
CL50 (specify species and route of entry)	LC50 Inhalation - Rat - 4 h - > 16,4 mg/l . < 32,7 mg/l.

SECTION 12 - ECOLOGICAL INFORMATION

2-HEXANONE

Ecotoxicity	Toxicity to fish: LC50 - Pimephales promelas (Bighead Minnow) - 428 mg/l - 96 h.
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	1224
UN Proper shipping name	CÉTONES LIQUIDES, N.S.A. (2-hexanone)
Transport hazard class(es)	Liquides inflammables 3
Packing group	III
Limited quantity index	5 L
ERAP Index	-
Special precautions	16

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	- Flammable liquids - category 3 - Acute toxicity - Dermal - category 1 - Acute toxicity - Oral - 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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