



SAFETY DATA SHEET

SECTION 01 - IDENTIFICATION

Product Identifier	DODECANE
Other identification (Chemical name, Commercial name, Synonymous)	BIHEXYL; Dihexyl; DODECANE; Dodécane normal; N-DODECANE; NORMAL DODECANE
Product code	DR-0207
Chemical formula	$\text{CH}_3(\text{CH}_2)_{10}\text{CH}_3$
Molar weight	170.34
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	2025-07-18

SECTION 02 - HAZARDS IDENTIFICATION

WHIMS CANADA

- Aspiration hazard - category 1
- Flammable liquids - category 4
- Serious eye damage/eye irritation - Eye irritation - category 2

PICTOGRAMS



Signal Word

DANGER

Hazards statements (H)

- May be fatal if swallowed and enters airways
- Combustible liquid
- Causes serious eye irritation

Precautionary statements (P)

- 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.
- Wear protective gloves (Viton®, nitrile, butyl), protective clothing and eye and face protection.
- In case of fire: Use water spray or alcohol-resistant foam, or dry powder or carbon dioxide to extinguish.
- Store in a well ventilated place.
- Wash thoroughly after handling.
- 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.

Other dangers

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

Health 1
Fire 2
Reactivity 1
Special danger

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Component	No. CAS	% Weight
Dodecane	112-40-3	<=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: Nausea and vomiting. Depression of the central nervous system. Convulsions. Gastrointestinal disorders. Pulmonary edema. Pneumonia. Anemia. Pain in the limbs. Numbness. 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.
Unsuitable extinguishing media	No limitations on extinguishing agents.
Combustion products	Hazardous combustion products formed under fire conditions: Carbon oxides.
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 with eyes, skin and clothing. Avoid ingestion and inhalation. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Bottle in the glass only. NOTE: may attack some plastics, rubbers and coatings. Wear personal protective equipment (ref. section 8) when handling. Always ensure good ventilation. 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

Component	CAS-No.	Value
Dodecane	112-40-3	No occupational exposure limits established by region-specific regulators - Quebec, Alberta, Ontario, British Columbia.

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	Clear
Odour	Weak
Odour threshold	data not available
Melting point and freezing point	-9.6°C
Boiling point	215 - 217 °C
Flammability	Yes
Lower flammable / Explosive limit	0.6%V
Upper flammable / Explosive limit	Data not available
Flash point	70°C
Auto-ignition temperature	200 °C
Decomposition temperature	Data not available
pH	Not applicable
Kinematic viscosity	Data not available
Solubility	Insol in water 30 - 260 µg/L @ 20 °C
Partition coefficient water/n-octanol	log Pow: 6.2 à 25 °C
Vapour pressure	20 Pa @ 25 °C
Relative density	0.75 gcm ³ à 25 °C
Vapour density	5.88 - (Air = 1.0)
Particle characteristics	Not applicable

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	May ignite on contact with oxidants if heat and oxygen are present in sufficient quantities. Flammable product, may ignite with source of ignition, if temperature above flash point. May react violently with incompatible substances.
Chemical stability	Sensitive to heat.
Possibility of hazardous reactions	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.
Incompatible materials	Oxydants. Various plastics.
Hazardous decomposition products	Carbon monoxide (CO), Carbon dioxide (CO ₂).

SECTION 11 - TOXICOLOGICAL INFORMATION

DODECANE

Routes of exposure	Ingestion, inhalation, skin and eye contact.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation.
- Skin	May cause skin irritation. Dermatitis.
- Inhalation	Chemical pneumonitis. Pulmonary edema. Irritation of the mucous membranes and respiratory tract. Breathing difficulties. Nausea and vomiting. Cough. Coma.
Acute toxicity (Ingestion)	Nausea and vomiting. Irritation of the esophagus and digestive tract. Coma.
Chronic exposure effects / symptoms	Chemical pneumonitis. Pulmonary edema. Anemia. Burning sensation. Pain in the limbs. Numbness. Headache. Dizziness. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
DL50 (specify species and route of entry)	LD50 Oral - Rat - >5000mg/kg. LD50 Dermal - Rabbit - 3160 mg/kg.
CL50 (specify species and route of entry)	LC50 Inhalation - Rat - 4 h - 6.1 mg/L.

SECTION 12 - ECOLOGICAL INFORMATION

DODECANE

Ecotoxicity	Data not available.
Persistence and degradability	Biodegradability aerobic - Duration of exposure 28 days - 90% Readily biodegradable
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	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

- Aspiration hazard - category 1
- Flammable liquids - category 4
- Serious eye damage/eye irritation - Eye irritation - category 2

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. National Library of Medicine)

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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