



SAFETY DATA SHEET

SECTION 01 - IDENTIFICATION

Product Identifier	CALCIUM CARBIDE
Other identification (Chemical name, Commercial name, Synonymous)	Acétylure de calcium; Calcium dicarbide; calcium carbide.
Product code	CT-0100
Chemical formula	CaC_2
Molar weight	64.1
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	2026-04-01

SECTION 02 - HAZARDS IDENTIFICATION

WHIMS CANADA

- Skin corrosion/irritation - Skin irritation - category 2
- Serious eye damage/eye irritation - Eye irritation - category 1
- Substances and mixtures which, in contact with water, emit flammable gases - category 1
- Specific target organ toxicity - Single exposure - category 3

PICTOGRAMS



Signal Word

DANGER

Hazards statements (H)

- Causes skin irritation
- Causes serious eye damage
- In contact with water releases flammable gases which may ignite spontaneously
- May cause drowsiness or dizziness

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 (nitrile, butyl, neoprene), protective clothing and eye and face protection.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Immediately call a POISON CENTER or a physician.
- Do not allow contact with water
- Handle under inert gas. Protect from moisture
- In case of fire: Use dry powder or dry sand to extinguish.
- IF ON SKIN: Immerse in cool water then wrap in wet bandages.
- Brush off loose particles from skin.
- Store in a dry place. Store in a closed container.
- Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company.
- 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.
- Call a POISON CENTER or a doctor or if you feel unwell.
- Store in a well ventilated place. Keep container tightly closed.
- Store locked up.

Other dangers

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

Health 1
Fire 4
Reactivity 2
Special danger EAU

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Component	No. CAS	% Weight
CALCIUM CARBIDE	75-20-7	<=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, eye and respiratory system irritation. Blindness. 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 dry chemical powder to extinguish the fire.
Unsuitable extinguishing media	Do not use water. Do not use foams.
Combustion products	Hazardous combustion products formed under fire conditions: If in contact with water, forms a flammable acetylene gas.
Specific hazards of the dangerous product	Risk of fire and explosion on contact with water. 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. 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. Avoid dust formation. Avoid breathing dust.
Methods and materials for containment and cleaning up	Pick up with a shovel or broom, taking care not to scatter dust. Avoid contact with water. Dispose of residues in a container for disposal of hazardous materials. When handling, wear suitable safety equipment. Discharge into the environment must be avoided.

SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Store in a cool, dry, and well-ventilated place. Keep container tightly closed and store away from heat, water, moisture, and incompatible products (ref. section 10).
Methods of handling	Avoid contact with water. Avoid contact withh eyes, skin and clothing. Avoid ingestion and inhalation. 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. Avoid the formation of dust.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

WORKPLACE CONTROL PARAMETERS

Component	CAS-No.	Value
CALCIUM CARBIDE	75-20-7	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. Neoprene. 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	Solid
Color	Grey-black.
Odour	Garlic odor.
Odour threshold	Data not available
Melting point and freezing point	2300 °C.
Boiling point	Data not available
Flammability	No, except in contact with water.
Lower flammable / Explosive limit	Data not available
Upper flammable / Explosive limit	Data not available
Flash point	Data not available
Auto-ignition temperature	Data not available
Decomposition temperature	Data not available
pH	Data not available.
Kinematic viscosity	Not applicable
Solubility	Réact with water.
Partition coefficient water/n-octanol	Data not available
Vapour pressure	Data not available
Relative density	Data not available
Vapour density	Data not available
Particle characteristics	Irregular lump, crystals.

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	May react violently with incompatible substances.
Chemical stability	Air sensitive. Moisture sensitive.
Possibility of hazardous reactions	May react violently with incompatible substances.
Conditions to avoid	Avoid moisture. Avoid contact with incompatible materials. Exposure to air.
Incompatible materials	Oxydants. Sulfur. Magnesium. Lead fluoride. Selenium. Silver nitrate. Peroxides. Violent reaction with: Water. Can form flammable gases with: Water. Humid air.
Hazardous decomposition products	Calcium Oxide. Carbon oxides. Acetylene.

SECTION 11 - TOXICOLOGICAL INFORMATION

CALCIUM CARBIDE

Routes of exposure	Ingestion, inhalation, skin and eye contact.
Acute exposition effects / symptoms:	By exposure route below. The symptoms may vary depending on the duration and concentration of the product.
- Eyes	Irritation. Causes serious eye damage. Blindness.
- Skin	Irritation. Causes skin burns. Redness.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Chemical pneumonitis. Cough.
Acute toxicity (Ingestion)	Breathing difficulties. Respiratory collapse. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
Chronic exposure effects / symptoms	To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
DL50 (specify species and route of entry)	LD50 Oral - Data not available. LD50 Dermal - Data not available.
CL50 (specify species and route of entry)	LC50 Inhalation - Data not available.

SECTION 12 - ECOLOGICAL INFORMATION

CALCIUM CARBIDE

Ecotoxicity	Toxicity to fish: LC50 - <i>Oncorhynchus mykiss</i> (rainbow trout) - Static test - >50 mg/L - 96 h. Toxicity to daphnia and other aquatic invertebrates: <i>Daphnia magna</i> (Water flea) - EC50 - Static test - 4.62 mg/L - 48 h. Toxicity to algae: <i>Desmodesmus subspicatus</i> (<i>Scenedesmus subspicatus</i>) - Static test EC50 - 46 mg/L - 72 h.
Persistence and degradability	Data not available.
Bioaccumulative potential	Data not available.
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 organisms. Avoid release to the environment.

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	1402
UN Proper shipping name	
Transport hazard class(es)	Matières hydroréactives 4.3
Packing group	II
Limited quantity index	0,5 kg
ERAP Index	-
Special precautions	-

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	- Skin corrosion/irritation - Skin irritation - category 2 - Serious eye damage/eye irritation - Eye irritation - category 1 - Substances and mixtures which, in contact with water, emit flammable gases - category 1 - Specific target organ toxicity - Single exposure - category 3
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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. 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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