



SAFETY DATA SHEET

SECTION 01 - IDENTIFICATION

Product Identifier	CADMIUM SULFATE (OCTAHYDRATE)
Other identification (Chemical name, Commercial name, Synonymous)	CADMIUM SULFATE HYDRATE; CADMIUM SULFATE OCTAHYDRATE; SULFURIC ACID CADMIUM SALT HYDRATE
Product code	CR-0106
Chemical formula	$3\text{CdSO}_4 \cdot 8\text{H}_2\text{O}$
Molar weight	769.51
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	2026-06-25

SECTION 02 - HAZARDS IDENTIFICATION

WHIMS CANADA

- Acute toxicity - Inhalation - category 4
- Acute toxicity - Dermal - category 4
- Acute toxicity - Oral - category 4
- Carcinogenicity - category 1B
- Germ cell mutagenicity - category 1B
- Reproductive toxicity - category 1B

PICTOGRAMS



Signal Word

DANGER

Hazards statements (H)

- Harmful if inhaled
- Harmful in contact with skin
- Harmful if swallowed
- May cause cancer
- May cause genetic defects
- May damage fertility or the unborn child

Precautionary statements (P)

- 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.
- Wear protective gloves (Viton®, nitrile, butyl), protective clothing and eye and face protection.
- IF ON SKIN: Wash with plenty of water
- Specific treatment (see section 4 on the SDS on this label).
- Take off contaminated clothing and wash before re-use.
- Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company.
- Wash thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- IF SWALLOWED: Call a POISON CENTER or a physician if you feel unwell.
- Rinse mouth.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- IF exposed or if you feel unwell: Call a POISON CENTER or a physician.
- Store locked up.

Other dangers

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

Health 3
Fire 0
Reactivity 1
Special danger

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Component	No. CAS	% Weight
Cadmium sulfate octahydrate	7790-84-3	<=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. 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: Damage to the reproductive system, sexual function and fertility. Breathing difficulties. Liver damage. Anemia. Muscular weakness. Kidney damage. Lung damage. Nausea and vomiting. Abdominal pain. Diarrhea. Dizziness. Headaches. May cause cancer. Ref. section 11.
Immediate medical attention and special treatment, if necessary	Treat according to symptoms. Show this sheet to the attending physician. In case of poisoning, the following can be administered as an antidote: Activated charcoal may be administered if victims are conscious and alert. Use 15 to 30 g for children, 50 to 100 g for adults, with 125 to 250 mL (1/2 to 1 cup) of water. (10g of coal per 1g of toxic in general).

SECTION 05 - FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	Data not available.
Combustion products	Hazardous combustion products formed under fire conditions: Sulfur oxides. Cadmium oxides.
Specific hazards of the dangerous product	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. 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 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.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

WORKPLACE CONTROL PARAMETERS

Composants	No.-CAS	Paramètres de contrôle	Valeur	Basis
Cadmium sulfate de cadmium octahydrate	7790-84-3	TWA (respirable)	0.002mg/m3 (Cadmium)	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		VEMP	0.005mg/m3 (Cadmium)	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA (respirable)	0.002mg/m3 (Cadmium)	Canada. Ontario OELs
		TWA	0.01mg/m3 (Cadmium)	Canada. British Columbia OEL
		TWA (Respirable)	0.002mg/m3 (Cadmium)	Canada. British Columbia OEL
		TWA	0.002000mg/m3	USA. ACGIH ACGIH, valeurs limites d'exposition (TLV)

Data origin	Sigma-Aldrich (Millipore Sigma) Ontario Regulation 833.
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	Off white
Odour	Odorless
Odour threshold	Data not available
Melting point and freezing point	41.5°C
Boiling point	>80°C (Dec)
Flammability	No
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	80°C
pH	soln @5% = pH 5.0 - 6.5
Kinematic viscosity	Not applicable
Solubility	Very soluble in water 1130g/L; Insoluble in alcohol
Partition coefficient water/n-octanol	Data not available
Vapour pressure	Data not available
Relative density	3.08g/cm ³
Vapour density	Data not available
Particle characteristics	Cristals

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	May react violently with incompatible substances.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	May react violently with incompatible substances.
Conditions to avoid	Avoid moisture. Avoid contact with incompatible materials.
Incompatible materials	Strong oxidizers. Metal powders. Aluminium. Carbon. Sulfur. Selenium. Magnesium. Tellurium. Aminoalcohols. Organic anhydrides.
Hazardous decomposition products	Cadmium oxides. Sulfur oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

CADMIUM SULFATE (OCTAHYDRATE)

Routes of exposure	Ingestion and inhalation.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
- Skin	Irritation. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
- Inhalation	May irritate the respiratory system. Cough. Breathing difficulties. Headaches. Fever. Dizziness. Sweating. Muscle aches. Cold like symptoms.
Acute toxicity (Ingestion)	Gastrointestinal disorders. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
Chronic exposure effects / symptoms	May damage the unborn child. Suspected of damaging fertility. May cause: Genetic anomalies. Is recognized as a carcinogen (class 1) by IARC. For cadmium and its compounds. Cancer of: Lungs. Prostate. Kidney damage. Liver damage. May cause damage to: Bones. Blood.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 280mg/kg. Data based on the anhydrous product. LD50 Dermal - Data not available.
CL50 (specify species and route of entry)	LC50 Inhalation - Data not available.

SECTION 12 - ECOLOGICAL INFORMATION

CADMIUM SULFATE (OCTAHYDRATE)

Ecotoxicity	Toxicity to fish: LC50 - Carassius auratus (goldfish) - 0.75 mg/l - 96h. Toxicity to daphnia and other aquatic invertebrates: LC50 - Daphnia magna (Water flea) - 0.036mg/l - 48h. 10. Toxicity to fish: Chronic toxicity - NOEC - Salvelinus fontinalis (Brook trout) - 0.008 mg/l - 10d. M-Factor (Chronic aquatic toxicity): 10.
Persistence and degradability	Not applicable for inorganic substances.
Bioaccumulative potential	Data not available.
Mobility in soil	Probable mobility in the environment due to its solubility in water.
Other adverse effects	Causes long-term adverse effects. 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	2570
UN Proper shipping name	CADMIUM COMPOUND (cadmium sulfate octahydrate)
Transport hazard class(es)	Toxic materials 6.1
Packing group	III
Limited quantity index	5 kg
ERAP Index	
Special precautions	16

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	- Acute toxicity - Inhalation - category 4 - Acute toxicity - Dermal - category 4 - Acute toxicity - Oral - category 4 - Carcinogenicity - category 1B - Germ cell mutagenicity - category 1B - Reproductive toxicity - category 1B
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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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