



Centre Anti-Poison pour le Québec: (800) 463-5060

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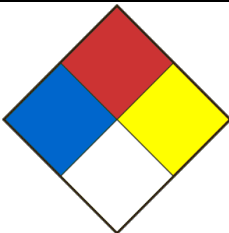
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SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier FERROUS CHLORIDE		Product Use Laboratory use	
Chemical formula FeCl ₂ ·4H ₂ O		Product code FR-0101	Molar weight 198,81
Chemical name / Commercial name / Synonymous FERROUS CHLORIDE TETRAHYDRATE, IRON(II) CHLORIDE TETRAHYDRATE, DICHLORURE DE FER TÉTRAHYDRATE, PROTOCHLORURE DE FER TÉTRAHYDRATE			
Supplier's name Laboratoire MAT		Address-Street 610, Adanac Street	
City Québec		Province Québec	
Postal code G1C 7B7	Internet www.labmat.com	Phone number 418-660-8666 / 800-890-8666	
Emergency phone	CANUTEC: 613-996-6666 CENTRE ANTI-POISON DU QUÉBEC 800-463-5060		
Date SDS 10/16/2018	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Acute toxicity - Oral category 4 Skin corrosion/irritation - Skin corrosion category 1B Serious eye damage/eye irritation - Serious eye damage category 1
Signal Word	DANGER
Hazards statements (H)	H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage.
Precautionary statements (P)	P260 Do not breathe dust / fume / gas / mist / vapours / spray. P264 Wash the areas of the body that have been in contact with the product after handling. P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves/protective clothing/eye protection/face protection. P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER or doctor/physician. P321 Specific treatment (see section 4 of the SDS and on this label). P330 Rinse mouth. P363 Wash contaminated clothing before reuse. P405 Store locked up. P501 Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company. P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
PICTOGRAMS	
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)
	Health 1 Fire 0 Reactivity 0 Special danger

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Chlorure ferreux tétrahydrate	13478-10-9	<=100

SECTION 04 - FIRST AID MEASURES

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 soiled clothing. If irritation persists, seek medical attention.
Inhalation	If breathing is difficult, give oxygen. If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion	If the person is conscious, drink water and induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	Ref. section 11.
Immediate medical attention and special treatment, if necessary	In case of medical consultation, keep this sheet available.
General advice	Show this safety data sheet to the doctor in attendance.

SECTION 05 - FIREFIGHTING MEASURES

Flammability	No
Ignition conditions	Not flammable or combustible.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	Data not available.
Hazardous combustion / decomposition products	Hazardous decomposition products formed under fire conditions. - Hydrogen chloride gas, Iron oxides.
Special fire and explosion hazards	Ferrous chloride tetrahydrate can form explosive mixtures in the presence of certain metals, especially potassium and sodium. Violent reactions with the oxide ethylene. 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

Methods and materials for containment and cleaning up / Personnel precautions, protective equipment	Ensure adequate ventilation. Evacuate personnel to safe areas. Use personal protective equipment. Pick up with a shovel or broom, taking care not to scatter dust. Dispose of residues in a container provided for the disposal of hazardous materials. Do not let product enter drains.
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SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Hygroscopic. Air-, heat-, and moisture-sensitive. Store in a cool, dry place. Keep container tightly closed in a dry and well-ventilated place.
Methods of handling	Always open containers slowly to allow any excess pressure to vent. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust or vapor is formed. Wear personal protective equipment when handling. Always ensure good ventilation. Transport according to TDG (ref Section 14) Do not use metal instruments to handle this product. NOTE: Aqueous solutions are corrosive to metals.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Ferrous chloride tetrahydrate	13478-10-9	TWA	1.000000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required			
		TWAEV	1.000000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWAEV	1.000000 mg/m3	Canada. Ontario OELs
		TWA	1.000000 mg/m3	Canada. British Columbia OEL
		STEL	2.000000 mg/m3	Canada. British Columbia OEL
		TWA	1.000000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)

Data source	Sigma-Aldrich.
Ventilation	Fan.
Respiratory	If the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply.
Gloves	Handle with gloves.
Eyes	Safety goggles with safety shutters.
Shoes	Safety shoes.
Clothing	Labcoat.
Engineering control	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.
Appearance	Cristaux de couleur jaune-vert.-
Odour	Inodore..
Odour threshold	Data not available
pH	Donnée non-disponible..
Melting point / Freezing point	-15 - 677 °C @ 101.325 kPa-
Initial boiling point	104 - 105 °C @ 101.325 kPa-
Boiling range	Data not available
Flash point	Data not available
Evaporation rate	Data not available
Flammability	No
Lower flammable / Explosive limit	Data not available
Upper flammable / Explosive limit	Data not available
Vapour pressure	20 hPa @ 20 °C-
Vapour density	Data not available
Relative density	1.41 - 3.65 g/cm³ @ 20 °C-
Solubility	Soluble dans l'eau et l'alcool.
Partition coefficient water/n-octanol	Data not available
Auto-ignition temperature	Data not available
Decomposition temperature	Data not available
Viscosity	3 - 8mpas

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Non-reactive under normal conditions.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Stable under normal conditions.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	This product may decompose if exposed to the open air.
Incompatible material	Strong oxidizing agents (nitric acid, perchloric acid, peroxides, chlorates and perchlorates), ethylene oxide, potassium and metallic sodium, air and moisture.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. Toxic vapors of hydrogen chloride. - Iron oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

FERROUS CHLORIDE

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation and may cause inflammation of the conjunctiva.
- Skin	Irritation and dermatitis.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Nervous disorders, chest pain, cough, dyspnea, headache, dizziness, sweating, salivation, nausea and vomiting.
Acute toxicity (Ingestion)	Irritation and inflammation of the mucous membranes. Dysphagia, abdominal pain, cramps, diarrhea, headache, dizziness, sweating, salivation, convulsions, nausea and vomiting.
Chronic exposure effects / symptoms	Burning sensation, dermatitis, conjunctivitis, nervous disorders, chest pain, cough, dyspnea, laryngitis, headache, dizziness, confusion, irritability, sweating, salivation, paleness, weakness, nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Oral - Data not available. LD50 Dermal - Data not available.
CL50 (specify species and route of entry)	CL50 - Inhalation Data not available.

SECTION 12 - ECOLOGICAL INFORMATION

Available ecological information	No
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SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of contents / container in accordance with local / regional / national / international regulations / or contact a specialist waste disposal company.
Contaminated Packaging	Dispose of as unused product.

SECTION 14 - TRANSPORT INFORMATION

UN Number	3260
UN Proper shipping name	SOLIDE INORGANIQUE CORROSIF, ACIDE,N.S.A. (chlorure ferreux)
Transport hazard class(es)	8 Corrosive substances
Packing group	III
Limited quantity index	5kg
ERAP Index	-
Special precautions	16

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Acute toxicity - Oral category 4 Skin corrosion/irritation - Skin corrosion category 1B Serious eye damage/eye irritation - Serious eye damage category 1
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SECTION 16 - OTHER INFORMATION

Further information

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.

Last Update: 10/16/2018