



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

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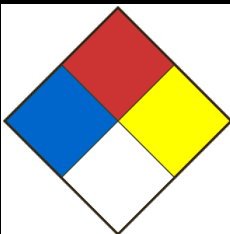
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SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier COBALT CHLORIDE 20%W/V		Product Use Laboratory use	
Chemical formula CoCl ₂ .6H ₂ O		Product code CS-2020	Molar weight 237,93
Chemical name / Commercial name / Synonymous COBALT (II) CHLORIDE HEXAHYDRATE, DICHLORURE DE COBALT HEXAHYDRATE, COBALTOUS CHLORIDE HEXAHYDRATE, MURIATE DE COBALT			
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 9/26/2018	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Reproductive toxicity category 1B Acute toxicity - Oral category 4 Germ cell mutagenicity category 2 Respiratory or skin sensitization - Respiratory sensitizer category 1 Carcinogenicity category 1B Respiratory or skin sensitization - Skin sensitizer category 1
Signal Word	DANGER
Hazards statements (H)	H302 Harmful if swallowed. H317 May cause an allergic skin reaction. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H341 Suspected of causing genetic defects. H350 May cause cancer. H360 May damage fertility or the unborn child.
Precautionary statements (P)	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P261 Avoid breathing 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. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/protective clothing/eye protection/face protection. P284 Wear respiratory protection. P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P304 + P340 EN CAS D'INHALATION: transporter la victime à l'extérieur et la maintenir au repos dans une position où elle peut confortablement respirer. P308 + P313 EN CAS d'exposition prouvée ou suspectée: consulter un médecin. P321 Traitement spécifique (voir section 4 de la FDS et sur cette étiquette). P330 Rinse mouth. P333 + P313 If skin irritation or rash occurs: Get medical advice/attention. P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. P362 + P364 Take off contaminated clothing and wash it 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.
PICTOGRAMS	
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Significant; 4=Extreme)
	Health 2 Fire 0 Reactivity 0 Special danger

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Chlorure de cobalt	7791-13-1	17

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, give water to drink. 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	Not applicable.
Dangerous fumes - combustion	When heated to decomposition, the product emits toxic fumes: Hydrogen chloride gas.
Special fire and explosion hazards	Cobalt chloride hexahydrate mixed with potassium or sodium metal can form explosive compounds sensitive to shocks. 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	Evacuate personnel to safe areas. Absorb the product with sand or vermiculite. Dilute residues with water, clean and rinse. Ensure a good ventilation of the premises. Dispose of residues in a container for disposal of hazardous materials. When handling, wear suitable safety equipment. Use breathing apparatus if necessary. Avoid breathing vapours, mist or gas.
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SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Hygroscopic. Store in a cool, dry place. Keep container tightly closed and store away from heat, water, moisture, and incompatible products. 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)

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Cobalt dichloride hexahydrate	7791-13-1	TWA	0.020000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks				
		TWAEV	0.020000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
	Sensitizer Carcinogenic effect detected in animals. Results of studies relating to the carcinogenicity of these substances in animals are not necessarily applicable to humans.			
		TWA	0.020000 mg/m3	Canada. British Columbia OEL
	IARC '2B' applies to substances deemed possibly carcinogenic to humans.			
		TWA	0.020000 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	Liquid.
Appearance	Liquide rougeâtre-
Odour	inodore.
Odour threshold	Data not available
pH	Solution aqueuse à 5% = pH 3.0 - 5.5 (chlorure de cobalt).
Melting point / Freezing point	Data not available
Initial boiling point	Data not available
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	Data not available
Solubility	Soluble dans l'eau, l'alcool et l'acétone.
Vapour density	Data not available
Relative density	1.2g/ml
Partition coefficient water/n-octanol	Data not available
Auto-ignition temperature	Data not available
Decomposition temperature	Data not available
Viscosity	Data not available

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)	Avoid moisture. Cobalt chloride hexahydrate mixed with potassium or sodium metal can form explosive compounds sensitive to shocks.
Incompatible material	Cobalt chloride reacts with strong oxidizing agents (nitric acid, perchloric acid, peroxides, chlorates and perchlorates), alkali metals (lithium, potassium, sodium), heat and moisture.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. - Hydrogen chloride gas - Cobalt/cobalt oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

COBALT CHLORIDE (HEXAHYDRATE)

Routes of exposure	Inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation and may cause inflammation of the conjunctiva.
- Skin	May cause skin irritation. May be harmful if absorbed through skin.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Nervous disorders, chest pain, cough, dyspnea, headache, dizziness, fever, nausea and vomiting.
Acute toxicity (Ingestion)	Irritation of the mucous membranes. Abdominal pain, cramps, diarrhea, headache, dizziness, nausea and vomiting, hyperplasia of the thyroid gland, myxedema, convulsions, hypotension, circulatory collapse, muscle paralysis and can lead to death from cardiac arrest.
Chronic exposure effects / symptoms	Is recognized as a possible carcinogen (class 2B) by IARC. Burning sensation, dermatitis, conjunctivitis, skin allergies, blood disorders, lung damage, cough, dyspnoea, laryngitis, headache, dizziness, irritability, confusion, erythema, fatigue, fever, weight loss and loss of appetite, convulsions, nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 766 mg/kg LD50 Dermal - Rabbit - > 2,000 mg/kg.
CL50 (specify species and route of entry)	Data not available.

SUMMARY

Acute exposure effects / Symptoms:	By exposure routes below.
Ingestion	To our knowledge, the product has not been fully evaluated
Inhalation	To our knowledge, the product has not been fully evaluated
Skin	To our knowledge, the product has not been fully evaluated
Eyes	To our knowledge, the product has not been fully evaluated
Chronic exposure effects / Symptoms:	To our knowledge, the product has not been fully evaluated
ETA Mix (Estimated Acute Toxicity)	LD50: 1140 mg/kg -Oral Rat LD50: >10 000 mg/kg -Dermal Rabbit LC50: No data available

SECTION 12 - ECOLOGICAL INFORMATION

Data not available

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	3077
UN Proper shipping name	MATIÈRE DANGEREUSE DU POINT DE VUE DE L'ENVIRONNEMENT, SOLIDE, N.S.A.
Transport hazard class(es)	9 Miscellaneous dangerous goods/hazardous material
Packing group	III
Limited quantity index	5L
ERAP Index	-
Special precautions	16 (chlorure de cobalt)

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Reproductive toxicity category 1B Acute toxicity - Oral category 4 Germ cell mutagenicity category 2 Respiratory or skin sensitization - Respiratory sensitizer category 1 Carcinogenicity category 1B Respiratory or skin sensitization - Skin sensitize 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.

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