



EMERGENCY NUMBERS:

(USA) CHEMTREC : 1(800) 424-9300 (24hrs)

(CAN) CANUTEC : 1(613) 996-6666 (24hrs)

(USA) Anachemia : 1(518) 297-4444

(CAN) Anachemia : 1(514) 489-5711

WHMIS	Protective Clothing	TDG Road/Rail
WHMIS CLASS: D-2A		Not controlled under TDG (Canada). PIN: Not applicable. PG: Not applicable.
		

Section I. Product Identification and Uses

Product name	MANGANOUS CHLORIDE	CI#	Not available.
Chemical formula	MnCl ₂ .4H ₂ O	CAS#	13446-34-9
Synonyms	Manganese dichloride tetrahydrate, Manganese chloride tetrahydrate, Manganese(II) chloride tetrahydrate, AC-5610, 54878,	Code	AC-5610
Supplier	Anachemia Canada. 255 Norman. Lachine (Montreal), Que H8R 1A3	Formula weight	197.90
		Supersedes	
Material uses	For laboratory use only.		

Section II. Ingredients

Name	CAS #	%	TLV
1) MANGANOUS CHLORIDE TETRAHYDRATE	13446-34-9	98-100	Exposure limits: ACGIH (Manganese and inorganic compounds (as Mn)) TWA 0.2 mg(Mn)/m

Toxicity values of the hazardous ingredients

MANGANOUS CHLORIDE:

ORAL (LD50): Acute: 1484 mg/kg (Rat).

INTRAPERITONEAL (LD50): Acute: 138 mg/kg (Rat). 144 mg/kg (Mouse).

Section III. Physical Data

Physical state and appearance / Odor	Odorless, reddish-pink deliquescent crystals.
pH (1% soln/water)	Not available
Odor threshold	Not available.
Percent volatile	Not available
Freezing point	58°C
Boiling point	1190°C Anhydrous
Specific gravity	2.01 (Water = 1)
Vapor density	Not available.
Vapor pressure	Not available.
Water/oil dist. coeff.	Not available.
Evaporation rate	Not applicable.
Solubility	Soluble in cold water.

Section IV. Fire and Explosion Data

Flash point	Not applicable.
Flammable limits	Not available.
Auto-ignition temperature	Not available.
Fire degradation products	Oxides of manganese. Chlorides.
Fire extinguishing procedures	Use extinguishing media suitable for surrounding materials. Wear adequate personal protection to prevent contact with material or its combustion products. Self contained breathing apparatus with a full facepiece operated in a pressure demand or other positive pressure mode. If without risk, move undamaged containing vessels or packages from fire area.
Fire and Explosion Hazards	The sensitivity to static discharge is not available. The sensitivity to impact is not available. Emits toxic fumes under fire conditions.

Section V. Toxicological Properties

Routes of entry	Inhalation and ingestion. Eye contact. Skin contact.
Effects of Acute Exposure	Harmful by ingestion and inhalation. Irritant. May cause manganism and blood damage. Neurotoxic. Target organs: blood, central nervous system, liver, kidneys, eyes, skin, respiratory system, lungs, reproductive system, nervous system, brain. Exposure to and/or consumption of alcohol may increase toxic effects.
Eye	Causes irritation.
Skin	Causes skin irritation. May cause sensitization by skin contact.
Inhalation	Material is irritating to mucous membranes and upper respiratory tract.
Ingestion	Causes gastrointestinal irritation. Nausea, abdominal pain, and hypoglycemia.

Section V. Toxicological Properties

Effects of Chronic Overexposure

Manganism: Chronic manganese poisoning can result from excessive inhalation to manganese dust and involves impairment of the central nervous system. Early symptoms include headache, sluggishness, sleepiness, anorexia, and weakness in the legs. Advanced cases have shown fixed facial expression, emotional disturbances, loss of memory, mental confusion, hallucinations, apathy, spastic gait, falling, and Parkinson type syndrome. Workers routinely exposed to high concentrations of manganese dust show an unusually high incidence of respiratory disease (pneumonia, bronchitis, pneumoconiosis, etc...). May cause anemia, brain, liver, kidney, lung and blood damage. Laboratory experiments have shown mutagenic effects. This product reduces sperm count in humans. Causes testicular damage in animal. Induces sterility in animal. Embryotoxic in animal. Passes through the placental barrier in animal. Excreted in maternal milk in animal. Carcinogenic effects: Not available. Medical conditions which may be aggravated: Individuals with preexisting diseases of the skin, eye, central nervous system, gastrointestinal or respiratory system may be more susceptible to the toxicity of overexposure to this product. To the best of our knowledge, the chemical, physical, and toxicity of this substance has not been fully investigated.

Section VI. First Aid Measures

Eye contact

Immediately flush eyes with copious quantities of water for at least 15 minutes holding lids apart to ensure flushing of the entire surface. Seek immediate medical attention.

Skin contact

Immediately flush skin with plenty of water and soap for at least 15 minutes while removing contaminated clothing and shoes. Seek immediate medical attention. Wash contaminated clothing before reusing.

Inhalation

Remove patient to fresh air. Administer approved oxygen supply if breathing is difficult. Administer artificial respiration or CPR if breathing has ceased. Seek immediate medical attention.

Ingestion

If conscious, wash out mouth with water. Have conscious person drink several glasses of water or milk. Induce vomiting by sticking finger in throat. Lower the head so that the vomit will not reenter the mouth and throat. Seek immediate medical attention. Never give anything by mouth to an unconscious or convulsing person.

Section VII. Reactivity Data

Stability

Stable. Conditions to avoid: High temperatures, sparks, open flames and all other sources of ignition, contamination.

Hazardous decomp. products

Not available.

Incompatibility

Reacts explosively with metals (sodium, potassium, zinc, etc...). Acids, oxidizing agents, reducing agents.

Reaction Products

Will create a violent explosion if this product, mixed with potassium or with sodium, is shocked. Hazardous polymerization will not occur.

Section VIII. Preventive Measures

MANGANOUS CHLORIDE

page 4/4

Protective Clothing in case of spill and leak Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves.

Spill and leak Evacuate the area. Sweep up and place in container for disposal. Avoid raising dust. Ventilate area and wash spill site after material pick up is complete. DO NOT empty into drains. DO NOT touch damaged container or spilled material.

Waste disposal According to all applicable regulations. May be harmful to aquatic life. Can be dangerous if allowed to enter drinking water intakes. Do not contaminate domestic or irrigation water supplies, lakes, streams, ponds, or rivers.

Storage and Handling Store in a cool place away from heated areas, sparks, and flame. Store in a well ventilated area. Store away from incompatible materials. Do not add any other material to the container. Do not wash down the drain. Do not breathe dust. Keep container tightly closed and dry. Protect from moisture. Product is highly hygroscopic. Manipulate under an adequate fume hood. Avoid raising dust. Empty containers may contain a hazardous residue. Handle and open container with care. Minimize dust generation and exposure - use dust mask or appropriate protection. Take off immediately all contaminated clothing. This product must be manipulated by qualified personnel. Do not get in eyes, on skin, or on clothing. Wash well after use. In accordance with good storage and handling practices. Do not allow smoking and food consumption while handling.

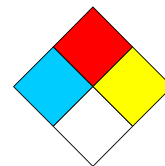
Section IX. Protective Measures

Protective clothing Splash goggles. Impervious gloves, apron, coveralls, and/or other resistant protective clothing. Sufficient to protect skin. A OSHA/MSHA jointly approved respirator is advised in the absence of proper environmental controls. If more than TLV, do not breathe vapor. Wear self-contained breathing apparatus. Do not wear contact lenses. Make eye bath and emergency shower available. Ensure that eyewash station and safety shower is proximal to the work-station location.

Engineering controls Use in a chemical fume hood to keep airborne levels below recommended exposure limits. Do not use in unventilated spaces.

Section X. Other Information

Special Precautions or comments Harmful solid! Embryotoxic! Reproductive toxin! Possible mutagen! Possible sensitizer! Irritant! Neurotoxic! Possible risks of irreversible effects. Do not breathe dust. Avoid all contact with the product. Avoid prolonged or repeated exposure. Use in a chemical fume hood. Keep away from heat, sparks and flame. Handle and open container with care. Container should be opened only by a technically qualified person. Synergistic materials: Ethanol. RTECS NO: OO9650000 (Manganous chloride).



NFPA

Prepared by MSDS Department/Département de F.S..

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