

MATERIAL SAFETY DATA SHEET – METAL RECOVERY SALTS

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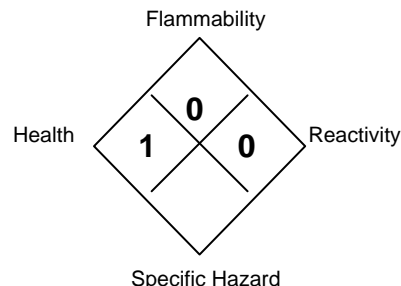
Section 1 – Product and Company Identification



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EMERGENCIES: CALL (800)424-9300(CHEMTREC)
HEALTH EMERGENCIES: CONTACT YOUR LOCAL POISON CENTER



Common name: Metal Recovery Salts **Formula:** KCl; NaCl **Synonym:** MRS **Use:** Industrial metals recovery

Section II – Composition/Information On Ingredients

Chemical Name(s)	CAS No.	Exposure Limits								% by Weight
		OSHA PEL		TLV - TWA		STEL		CEIL		
		mg/m ³	ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³	ppm	
Potassium Chloride	7447-40-7	15 / 5*		10**						20 - 50
Sodium Chloride	7647-14-5	15 / 5*		10**						50 - 80

May contain up to 0.25% base lubrication oil and/or 0.03% neutralized primary aliphatic amines.

**Total Dust / Respirable dust

*Based on ACGIH nuisance dust limits.

Section III – Hazard Identification

Potential Acute Health Effects: May cause irritation.

Eyes and Skin: Mild irritation, especially in open wounds.

Inhalation: Exposure to high dust concentrations may cause irritation of mucous membranes.

Ingestion: A large body load may cause vomiting, diarrhea, cramps, tingling in hands and feet, weak pulse, and circulatory Disturbances.

Potential Chronic Health Effects: None Established.

Carcinogenicity Lists: IARC Monograph No NTP: No OSHA: No

Section IV – First Aid Measures

Eyes: Flush with water, including under upper & lower lids, for at least 15 minutes. Get medical attention if pain and Irritation persists.

Skin: Wash thoroughly with water. Obtain advise if rash develops.

Ingestion: Administer water if patient is conscious. Ingesting salts will usually cause purging of the stomach by vomiting. Get Medical attention.

Inhalation: Remove to fresh air. If discomfort persists, get medical attention.

Section V – Fire Fighting Measures

Flash Point: None **Auto-ignition Temperature:** Not Applicable

Lower Explosive Limit: Not Applicable **Upper Explosive Limit:** Not Applicable

Unusual Fire and Explosion Hazards: When subjected to extremely high temperatures, it may release small quantities of chlorine gas.

Extinguishing Media: As required for surrounding fire. Salt is non-flammable and does not support combustion.

Special Firefighting Procedures and Equipment: Wear full protective clothing and self-contained breathing apparatus. As this material is virtually non-flammable wear PPE sufficient to fight surrounding fire.

Section VI – Accidental Release Measures**Small Spill:** Sweep up if non-contaminated.**Large Spill:** Collect with appropriate equipment. If on a hard surface, sweep up residue with brooms. If on soil, remove and collect the top 5 cm of soil.**Release Notes:** Salt is highly soluble and can be quickly diluted below the toxic level by relatively large amounts of water. Salt which has entered a small non-permanent pond should be removed by pumping the pond dry. If spill could potentially enter any waterway, including intermittent dry creeks, contact the local authorities. If in the U.S., contact the US COAST GUARD NATIONAL RESPONSE CENTER toll free number, 800-424-8802. In case of accident or road spill notify: CHEMTREC IN USA AT 800-424-9300; CANUTEC in Canada at 613-996-6666 CHEMTREC in other countries at (International code)+1-703-527-3887.**Comments:** See Section XIII for disposal information and Section XV for regulatory requirements. Large and small spills may have a broad Definition depending on the user's handling system. Therefore, the spill category must be defined at the point of release by technically qualified personnel.**Section VII – Handling and Storage****Ventilation:** Local exhaust to reduce dust concentrations below recommended levels.**Handling:** Avoid generating dust by excessive or unnecessary movement.**Storage:** Store in a dry location. Avoid contact with aluminum or carbon steel to minimize corrosion**Section VIII – Exposure Controls/Personal Protection****Engineering Controls:** May be necessary to minimize dust levels.**Personal Protection:****Eye Protection:** Use tight-fitting safety goggles in areas of high dust concentration.**Protective Clothing:** Gloves, long sleeve shirts and long pants. Launder work clothing regularly**Respiratory Protection:** NIOSH approved dust respirators until engineering controls are implemented.**Other Protective****Clothing or Equipment:** Optional**Section IX – Physical and Chemical Properties****Appearance/Color/Odor:** White powder, fine to 4mm size, granules which may have a slight oily odor.**Melting Point/Range:** 1067°F**Solubility in Water:** 357 g/L at 25°C**Specific Gravity:** 2.0 (H₂O = 1)**Vapor Density:** Not Applicable**Bulk Density:** 1.98 g/ml**pH:** 8 – 9 (solution)**Viscosity:** Not applicable**Boiling Point:** 1067 °C(sublimates)**Boiling Point/Range:** 1420 - 1500°C**Vapor Pressure (mmHg):** Not Applicable**Molecular Weight:****% Volatiles:** < 0.5**Evaporation Rate:** Not Applicable

Section X – Stability and Reactivity

Stability:	Stable
Hazardous Polymerization:	Will not occur
Conditions to Avoid:	None
Materials to Avoid (Incompatibilities):	Contact with strong acid may produce hydrogen chlorine gas; contact with hot nitric acid may produce toxic nitrosyl chloride.
Hazardous Decomposition Products:	None

Section XI Toxicological Information

Significant Routes of Exposure	Eyes, skin, inhalation, ingestion
Toxicity to Animals:	Oral LD ₅₀ (mouse, rat): 1500 – 2600 mg/kg
Special Remarks On Toxicity to animals:	Based on toxicity data for another salt compound (i.e. potassium nitrate). Not expected to be toxic by dermal exposure as defined by OSHA
Other Effects on Humans:	None known.
Special Remarks On Chronic Effects On Humans:	Not reported to be carcinogenic mutagenic, teratogenic or allergenic.
Special Remarks On other Effects on Humans:	None

Section XII – Ecological Information

Ecotoxicity:	96 hour LC50 (rainbow trout) 2010mg/L 12 hour TLm (aquatic plants) 1337 mg/L NEOL (aquatic plants) 0.6 g/L 48 hour TLm (daphnia) 337 mg/L 72 hour EC50 (aquatic plants) 2500 mg/L
Environmental Fate:	Dissolves in water and disassociates into Na, K and Cl ions. Will remain in solution until solubility product (350 g/L) reached. Ions may be absorbed by plants or by animals ingesting water containing salt.
Toxicity:	Non-toxic to aquatic organisms as defined by USEPA
Degradation	Chloride, sodium and potassium ions.

Section XIII – Disposal Considerations

Product Disposal:	Dispose according to Federal State or Provincial regulations In a landfill approved to receive salt.
General Comments:	Because of its solubility, salt should not be disposed of in a location where run-off will escape.

Section XIV – Transportation Information

	USDOT	TDG - Canada
Proper Shipping Name:	Not Regulated	Not Regulated
Hazard Class:		
Identification Number:		
Packing Group (Technical Name)		
Labeling/Placarding:		
Authorized Packaging:		
Notes:		
European Transportation:		

Section XV – Regulatory Information

UNITED STATES:

SARA Hazard Category: This product has been reviewed according to the EPA Hazard Categories promulgated under Section 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Fire: No **Pressure Generating:** No **Reactivity:** No **Acute:** No **Chronic:** No

40 CFR Part 355 – Extremely Hazardous Substances:

40 CFR Part 370 – Hazardous Chemical Reporting:

All intentional ingredients listed on the TSCA inventory.

SARA Title III Information: This product contains the following substances subject to the reporting requirements of Title III (EPCRA) of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

Chemical	CAS No.	Percent by Weight	CERCLA RQ (lbs.)	SARA (1986) Reporting		
				311	312	313
Potassium Chloride	7447-40-7	30	NA	No	No	No
Sodium Chloride	7647-14-5	70	NA	No	No	No

CERCLA/Superfund, 40 CFR Parts 117,302: If this product contains components subject to substances designated a **CERCLA Reportable Quantity (RQ) Substances**, it will be designated in the above table with the **RQ** value in pounds. If there is a release of **RQ Substance** to the environment, notification to the National Response Center, Washington D.C. (1-800-424-8802) is required.

CANADA:

WHMIS Hazard Symbol and Classification: Not controlled

Ingredient Disclosure List: This product does not contain ingredient(s) on this list.

Environmental Protection: All intentional ingredients are listed on the DSL (Domestic Substance List).

Section XVI – Other Information

NFPA Hazard Rating: Health 1 Fire 0 Reactivity 0 Special Hazards _____

0 = Insignificant 1 = Slight 2 = Moderate 3 = High 4 = Extreme

Comments: None

Section(s) changed since last revision: All, New Format and new ecotoxicity information.

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