



# Saskatchewan Minerals Inc.

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## MATERIAL SAFETY DATA SHEET To WHMIS Standard

### Section I - Material Identification and Use

**Material Name:** Sodium Sulphate  
**Manufacturer's Name:** Saskatchewan Minerals Inc.  
# 1 Railway Ave.  
P.O. Box 120  
Chaplin, Saskatchewan, Canada  
SOH OVO

**Supplier's Name  
& Street Address:** Same as Manufacturer's

**NOTE FROM SASKATCHEWAN MINERALS:** The listed information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of Merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.

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**Chemical Name -** Sodium Sulphate Anhydrous

**Chemical Family** - Inorganic alkali metal sulphate

**Chemical Formula** - Na<sub>2</sub>SO<sub>4</sub>

**Molecular Weight** - 142.04

**Trade Name and Synonyms** - Saltcake, Disodium sulphate, Sodium sulphate anhydrous, Sulfuric acid disodium salt

**Chemical Abstract Service Number (CAS)** - 7757-82-6

**Material Use** - Primary chemical and chemical additive

## **Section II - Hazardous Ingredients of Material**

**Not applicable** - Material is not a controlled product and does not contain any ingredients that have to be disclosed on a MSDS further to the requirements of the Hazardous Products Act and Regulations.

## **Section III - Physical Data for Material**

**Physical State** - Solid

**Odour and Appearance** - Fine white crystalline granules or powder, odourless to slight characteristic odour

**Odour Threshold** - Not applicable

**Specific Gravity** - 2.6

**Vapour Pressure** - Not applicable

**Vapour Density (Air=1)** - Not applicable

**Evaporation Rate** - Not applicable

**Boiling Point** - Decomposes at 1100 degrees C

**Melting Point** - 882 degrees C

**Freezing Point** - Not applicable

**pH** - 6.0 to 9.0 for 1% solution

**Density** - Bulk 77-90 lb. per cu. ft. (as poured)

**Coefficient of water/oil distribution** - Not applicable

**Solubility in water (20 degrees C)** - 15.9% by weight

## **Section IV - Fire and Explosion Hazard of Material**

**Conditions of Flammability** - Non-flammable

**Means of Extinction** - Any means suitable for extinguishing surrounding fire

**Flashpoint and Method of Determination** - Not applicable

**Upper Explosion Limit (% by volume)** - Not applicable

**Lower Explosion Limit (% by volume)** - Not applicable

**Auto-ignition Temp.** - None

**Flammability Classification** - Not applicable

## **Section V - Reactivity Data**

**Chemical Stability** - Chemically stable

**Incompatibility to Other Substances** - Aluminum

**Reactivity and Under What Conditions** - Violent explosions will occur when sodium sulphate is melted with aluminum or magnesium.

**Hazardous Decomposition Products** - When heated to decomposition (1100 degrees C), sodium sulphate emits toxic oxides of sulphur and sodium oxide.

## **Section VI - Toxicological Properties**

**Routes of Entry:**

**Inhalation** - can cause slight irritation of respiratory passages

**Skin Contact** - can cause minor irritation

**Skin Absorption** - Insignificant

**Eye Contact** - can cause irritation

**Ingestion** - slowly absorbed from the alimentary tract. Because of osmotic activity, it will draw water into the lumen of the bowel and, in sufficient quantity, may cause purging and fluid loss.

#### **Effects of Overexposure:**

**Acute** - can cause irritation of the eyes and respiratory passages. Ingestion may cause diarrhea.

**Chronic** - no long term effects are expected (Source: Kelada and Euinton Journal of Occupational Medicine, 12, 812, 1978).

#### **Toxicity:**

**LD50** - oral-mouse 5,989 mg/kg

**LC50** - no available data

**Carcinogenicity, Mutagenicity, Teratogenicity** - sodium sulphate is not included on the IARC, NTP, ACGIH lists or on NIOSH's subfile. Reproductive effects cited in RTECS from injectable doses of 60 mg/kg in mice.

**Irritancy and Sensitization of Material** - sodium sulphate is not known to cause sensitization. It can cause minor irritation to skin and mucous membranes.

**Synergistic Materials** - no available information

#### **Section VII - Preventive Measures**

**Engineering Controls** - in general, dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered.

**Personal Protective Equipment:**

**Respiratory** - in unusually dusty conditions a nuisance dust/mist respirator may be worn.

**Skin Protection** - protective rubber gloves may be needed.

**Eye Protection** - safety glasses or goggles are recommended in unusually dusty conditions. Maintain an eye wash fountain if eye overexposure is perceived.

**Hygienic Practices to be followed** - normal

**Work Practices to be followed** - normal

**Other Handling and Storage Requirements** - keep dry otherwise will cake, highly hygroscopic.

**Special Shipping Information** - no U.N. number is assigned. Sodium sulphate is not listed in Schedule II of the Transportation of Dangerous Goods Regulation.

**Spill or Leak Control** - normal procedures

**Spill Clean up** - shovel up dry chemical for use or disposal. Sweep up and maximize recovery. Flush residue with water if environmental regulations permit. Small amounts are not injurious to soil.

**Neutralizing Chemicals** - not required

**Waste Disposal Method** - deliver to an approved waste disposal facility. Ensure compliance with local, state and federal regulations.

#### **Section VIII - First Aid Measures**

**Inhalation** - not expected to require first aid measures.

**Ingestion** - give several glasses of water to drink to dilute. If large amounts were swallowed (>15g) get medical advice.

**Skin Exposure** - wash exposed area with soap and water.

**Eye Exposure** - wash thoroughly with running water. Get medical advice if irritation persists.

#### **Section IX - Preparation Date of MSDS**

**Prepared by** - Saskatchewan Minerals in consultation with Occupational Health and Safety Branch, Saskatchewan  
Department of Human Resources, Labour and Employment.

**Phone Number** - (306) 395-2561

**Preparation Date** - August 1988

**Revision Date** - September 2009