









# Material Safety Data Sheet

**EMERGENCY NUMBERS:**

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

**ACTION MINING: 1(800)624-1511**

WHMIS	Protective Clothing	TDG Road/Rail
WHMIS CLASS: D-1B D-2A		
  	    	

## Section I. Product Identification and Uses

Product name	<b>ACTION MINING GOLD/SILVER BULLION FLUX</b>	CI#	Not available.
Chemical formula	Not applicable.	CAS#	Not applicable.
Synonyms		Code	
Supplier	Action Mining Services Inc 37482 Ruben Lane Sandy OR 97055	Formula weight	Not applicable.
		Supersedes	
Material uses	For laboratory use only.		

## Section II. Ingredients

Name	CAS #	%	TLV
1) SODIUM NITRATE	7631-99-4	0.5-1	Not established
2) SODIUM CARBONATE	497-19-8	10-50	Not established by ACGIH Exposure limits: ACGIH TWA 1 mg/m <sup>3</sup>
3) SODIUM BORATE	1330-43-4	10-50	
4) SILICA SAND	14808-60-7	0.5-1	Exposure limits: ACGIH TWA 0.1 mg/m <sup>3</sup> (respirable dust):

**Toxicity values of the hazardous ingredients**

**SODIUM NITRATE:**  
ORAL LD50: 1267 MG/KG

**SILICA:**  
LD50: Not available.  
LC50: Not available.

**SODIUM BORATE DECAHYDRATE:**  
ORAL (LD50): Acute: 2660 mg/kg (Rat), 2000 mg/kg (Mouse), 5330 mg/kg (Guinea pig).  
ORAL (LDLo): Acute: 709 mg/kg (Human).

**SODIUM CARBONATE:**  
ORAL (LD50): Acute: 4090 mg/kg (Rat), 6600 mg/kg (Mouse).  
DUST (LC50): Acute: 800 mg/m<sup>3</sup> (Guinea pig) (2 hour(s)).  
INHALATION (LC50): Acute: 2300 mg/m<sup>3</sup> (Rat) (2 hour(s)), 1200 mg/m<sup>3</sup> (Mouse) (2 hour(s)).

**Section III. Physical Data**

Physical state and appearance / Odor	Whitish powder or crystals, odorless.
pH (1% soln/water)	Not available.
Odor threshold	Not available.
Percent volatile	Not available.
Freezing point	Not available.
Boiling point	Not available.
Specific gravity	Not available.
Vapor density	Not available.
Vapor pressure	Not available.
Water/oil dist. coeff.	Not available.
Evaporation rate	Not available.
Solubility	Slightly soluble in cold water.

**Section IV. Fire and Explosion Data**

Flash point	Not available.
Flammable limits	Not available.
Auto-ignition temperature	Not available.
Fire degradation products	Oxides of carbon, sodium, boron
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. Cool containing vessels with flooding quantities of water.
Fire and Explosion Hazards	Slightly sensitive to mechanical impact, shock, heat or friction. Oxidizing material can increase flammability of adjacent combustible materials.

**Section V. Toxicological Properties**

Routes of entry	Inhalation and ingestion. Eye contact. Skin contact. Skin absorption.
Effects of Acute Exposure	
Eye	Causes irritation.
Skin	Causes skin irritation. Symptoms of lead poisoning (see ingestion) may occur. Readily absorbed through skin.
Inhalation	Material is irritating to mucous membranes and upper respiratory tract. Local irritation of the bronchia and lungs can occur.
Ingestion	May cause gastroenteritis and abdominal pains. Other symptoms may include dizziness, bloody diarrhea, convulsions, and collapse. Purging and diuresis can be expected. Small repeated doses may cause headache and mental impairment. Rare cases of nitrates being converted to the more toxic nitrites have been reported, mostly with infants.

## Section V. Toxicological Properties

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### Effects of Chronic Overexposure

Symptoms of chronic exposure are like those for ingestion. Prolonged or repeated exposure to crystalline silica may cause silicosis, a disabling pulmonary fibrosis characterized by fibrotic changes and miliary nodules in the lungs, a dry cough, shortness of breath, emphysema, decreased chest expansion, and increased susceptibility to tuberculosis. In advanced stages, loss of appetite, pleuritic pain, and total incapacity to work. Advanced silicosis may result in death due to cardiac failure or destruction of the lung tissue. Medical conditions which may be aggravated: individuals with preexisting diseases of the pulmonary/respiratory system or with skin or eye problems may be more susceptible to the effects of this product. To the best of our knowledge, the chemicals, 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. Get immediate medical attention.
Ingestion	If conscious, wash out mouth with water. Have conscious person drink several glasses of water to dilute. Seek immediate medical attention. Never give anything by mouth to an unconscious or convulsing person. Vomiting may be induced immediately to a conscious person as directed by medical personnel.

## Section VII. Reactivity Data

Stability	Stable. Conditions to avoid: High temperatures, sparks, open flames and all other sources of ignition, contamination.
Hazardous decomp. products	May emit nitrous oxides when heated to decomposition
Incompatibility	May react violently with acids, chlorinated rubber, halogens, dichloromethylsilane, hydrogen trisulfide, linseed oil, metal acetylides, non metals (boron, silicon, etc.), metals (aluminum, zinc, sodium, titanium, zirconium, etc.), seleninyl chloride, carbides, oxidizing agents, glycerol, silver oxide, peroxyformic acid, hydrogen peroxide, ethylene, sulfides, lithium carbide, aluminum carbide, fluoroelastomers, reducing agents, combustible materials, perchloric acid, sulfur trioxide, ammonium nitrate.
Reaction Products	Not available. Hazardous polymerization will not occur.

## Section VIII. Preventive Measures

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Protective Clothing in case of spill and leak	Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves. Full suit.
Spill and leak	Evacuate the area. Sweep up and place in container for disposal. Avoid raising dust. Minimize air borne spreading of dust. Seal container and dispose of in an approved facility. 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. Stay upwind: Keep out of low areas.
Waste disposal	This material and its container must be disposed of in a safe way. Dispose of waste material at an approved (hazardous) waste treatment/ disposal facility in accordance with applicable local, provincial and federal regulations. According to all applicable regulations. Harmful to aquatic life at low concentrations. 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. 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. Wash thoroughly after handling. Wear clean work-clothing daily. Wear suitable protective clothing. After handling, always wash hands thoroughly with soap and water. In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible.).

## Section IX. Protective Measures

Protective clothing	Splash goggles. Impervious gloves, apron, coveralls, and/or other resistant protective clothing. Sufficient to protect skin. Wear appropriate MSHA/NIOSH approved chemical cartridge respirator. 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

NFPA RATINGS:  
HEALTH: 1 FLAMMABILITY: 0 REACTIVITY: 1 OTHER OXIDIZER  
Contains small percentage of sodium nitrate as an oxidizer.

RTECS NO: ED4588000 (Sodium borate).  
RTECS NO: VZ4050000 (Sodium carbonate).  
RTECS NO: VV7330000 (Silica).



NFPA

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

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