

**Material Safety Data Sheet**

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

**U.S. Department of Labor**

Occupational Safety and Health Administration  
(Non-Mandatory Form)  
Form Approved  
OMB No. 1218-0072

IDENTITY (as Used on Label and List)

Note: Blank spaces are not permitted. If any item is not applicable or no information is available, the space must be marked to indicate that.

**FIT-5 Aerosol Generator****Section I**

Manufacturer's name:

ARA Safety Inc.

Emergency Telephone Number: (USA) 1-800-535-5053

(International) 1-352-323-3500

Address (Number, Street, City, State and ZIP Code)

1295 Johnston Street

Telephone Number for Information: 1-888-955-8883

Vancouver, BC, Canada V6H 3R9

Date Prepared: September 09, 2008

Signature of Preparer (optional)

**Section II—Hazardous Ingredients/Identity Information**

Hazardous Components (Specific Chemical Identity, Common Name(s))

	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Disc				
Potassium Nitrate (KNO <sub>3</sub> ) 7757-79-1				83-87
Dicyanodiamide (Cyanoguanidine) 461-58-5				13-17
Calcium Sulfate Dihydrate 10101-41-4				1-2

**Section III—Physical/Chemical Characteristics****EMERGENCY OVERVIEW**

Caution: Avoid contact and Inhalation. Target organ(s): Blood, Central Nervous System

**HMIS RATING**

HEALTH: 1\*

FLAMMABILITY: 0

REACTIVITY: 3

SPECIAL HAZARD(S): Oxidizer

**NFPA RATING**

HEALTH: 1\*

FLAMMABILITY: 0

REACTIVITY: 3

SPECIAL HAZARD(S): Oxidizer

\* Additional chronic hazards present

**Section IV—Health Hazard Data**

Route(s) of Entry

Inhalation? XX

Skin? XX

Ingestion? XX

Health Hazards (Acute and Chronic) Target Organs – Blood and Central Nervous System

Carcinogenicity

NTP? No

IARC Monographs? No

OSHA Regulated? Yes

Signs and Symptoms of Exposure:

Absorption into the body leads to the formation of methemoglobin, which in sufficient concentrations may cause cyanosis. On set may be delayed 2 to 4 hours or longer.

Medical Conditions:

Generally Aggravated by Exposure

Emergency and First Aid Procedures:

Inhalation – Remove to fresh air, if breathing becomes difficult, consult physician.

Dermal Exposure:

In case of skin contact, flush with copious amounts of water, for at least 15 minutes. Remove contaminated clothing and shoes – consult physician. Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating eyelids with fingers – Consult physician.

**Section V— Fire and Explosion Hazard Data**

Flash Point (Method Used): N/A | Flammable Limits | LEL | UEL

Extinguishing Media:

Suitable – Water Spray, Carbon Dioxide, Dry Chemical Powder or Appropriate Foam

Special Fire Fighting Procedures:

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Unusual Fire and Explosion Hazards:

Vigorously Supports Combustion, Oxidizing

**Section VI—Accidental Release Measures**

Steps to Be Taken in Case Material Is Released or Spilled:

Evacuate area. Sweep up material, place in appropriate receptacle, label and store for disposal.

Procedure(s) for Personal Precaution(s):

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves

Other Precautions: Material is Hygroscopic

**Section VII—Precautions for Safe Handling and Storage**

Precautions to Be Taken in Handling and Storing:

Do not breath vapor, do not get in eyes, on skin or clothing, avoid prolonged or repeated exposure.

Store in suitable dry environment. Keep tightly closed. Keep away from combustible materials, heat, sparks &amp; open flame

Other Precautions:

Material is Hygroscopic

**Section VIII—Control Measures**

Respiratory Protection (Specify Type): Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment indicates air-purifying respirators are appropriate, use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls.

Ventilation	Local Exhaust	Special
	Mechanical (General)	Other

Protective Gloves: Compatible chemical resistant gloves | Eye Protection: Chemical safety goggle

Other Protective Clothing or Equipment: Protective coveralls

Work/Hygienic Practices: Wash thoroughly after handling. Remove and wash contaminated clothing promptly

**Section IX —Physical/Chemical Characteristics**

Boiling Point	N/A	Specific Gravity (H2O = 1)	2.1 g/cm3
Vapor Pressure (mm Hg)	N/A	Melting Point/Melting Range	400 OC
Vapor Density (AIR = 1)	N/A	Evaporation Rate (Butyl Acetate = 1)	N/A
Solubility in Water	N/A		

Appearance and Odor: Physical State: Solid Color: Red/Burnt Orange with White Crust

**Section X—Reactivity Data**

Stability	Unstable:		Conditions to Avoid: Moisture, High Temperatures
	Stable:	XX	

Incompatibility (Materials to Avoid):

Strong Reducing Agents, Finely Powdered Metals, Strong Acids and Bases, Organic Materials

Hazardous Decomposition or Byproducts:

Nitrogen Oxides, Potassium Oxides, Carbonates, Carbon Dioxide, Carbon Monoxide, Hydrogen Cyanide, Other Combustion Products To Be Determined

Hazardous Polymerization	May Occur:		Conditions to Avoid:
	Will Not Occur: XX		

**Section XI—Toxicological Data**

ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: May cause eye irritation.

Inhalation: Material may be irritating to mucous membranes and upper respiratory tract.  
May be harmful if inhaled.

Ingestion: May be harmful if swallowed.

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**TOXICITY DATA**

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**Potassium Nitrate**

Oral Rat LD50 - 3750 mg/kg

Oral Rabbit LD50 - 1901 mg/kg

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**Dicyanodiamide**

Skin, Rabbit LD50 - &gt; 2,000 mg/kg

Inhalation Rat LDLO - &gt; 0.259 mg/kg

Oral Mouse LD50 - 10,000 mg/kg

Intraperitoneal Mouse LD50 - 4 gm/kg

Intraperitoneal Rabbit LD50 - 3 gm/kg

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**Calcium Sulfate Dihydrate**

To the best of our knowledge, the chemical, physical and toxicological properties of calcium sulfate dehydrate have not been thoroughly investigated

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**Section XII—Ecological Data**

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NO DATA AVAILABLE

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**Section XIII —Disposal Considerations**

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RCRA – D001

Waste Disposal Method: Material is oxidizing solid. Dispose in accordance with all applicable federal, state and local regulations

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**Section XIV– TRANSPORT INFORMATION**

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**USDOT Proper Shipping Information****Proper Shipping Name: Oxidizing solid, N.O.S.****UN#: UN1479****Hazard Class: 5.1****Packing Group: PG II****Hazard Label: Oxidizer****Sub Class:**

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**Section XV —Regulatory Information**

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EU Additional Classification:

Undetermined

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U.S. Classification and Label Text:

Indication of Danger: Oxidizing

Risk Statements: Contact with combustible material may cause fire

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United States Regulatory Information

SARA LISTED: No

TSCA INVENTORY ITEM: Yes; Potassium Nitrate

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Canada Regulatory Information:

WHMIS Classification: Incomplete

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**Section XVI —Other Information**

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Warranty:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. 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. It does not represent any guarantee of the properties of the product. ARA Safety shall not be held liable for any damage resulting from handling or from contact with the above product.

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