MATERIAL SAFETY DATA SHEET

MSDS No: 013

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SECTION 1: IDENTIFICATION

<u>PRODUCT NAME</u>: Nepheline Syenite - various grades

SYNONYMS: Anhydrous sodium potassium alumino silicate, Inorganic feldspathic mineral

SECTION 2: COMPONENTS

CAS#	Component	Percentage	Exposure Limits
37244-96-5	Nepheline Syenite	100%	PEL – 5mg/m ³ TWA, 15 mg/m3 TWA (respirable fraction) (total dust)
			$TLV - 10 mg/m^3 TWA$, 3 mg/m3 TWA (inhalable fraction) (respirable fraction)
~		2 1	MSHA - 5 mg/ m ³ TWA, 15 mg/m3 TWA (respirable fraction) (total dust)
2		4 B 1	As Particulates not Otherwise Classified

PEL means OSHA Permissible Exposure Limit.

TLV means American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value. MSHA means Mine Safety and Health Administration Exposure Limit. TWA means 8 hour time weighted average.

Note: The Permissible Exposure Limits (PEL) reported above are the pre-1989 limits that were reinstated by OSHA June 30, 1993 following a decision by the 11th Circuit Court of Appeals. These PELs are now being enforced by Federal OSHA. Be aware that more restrictive exposure limits may be enforced by some states, agencies or other authorities.

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This product is a chemically inert, non-combustible mineral. Excessive inhalation of dust may cause lung injury, with symptoms of shortness of breath and reduced pulmonary function.

HEALTH HAZARDS:

Inhalation: Inhalation of dust may cause irritation of the nose, throat and respiratory passages.

Skin Contact: No adverse effects expected.

Eye Contact: Contact may cause mechanical irritation and possible injury.

Ingestion: No adverse effects expected for normal, incidental ingestion.

<u>Chronic Health Effects:</u> Prolonged overexposure to any nuisance dust may cause lung injury. Symptoms include cough, shortness of breath, and reduced pulmonary function.

<u>Cancer Status</u>: None of the components of this product are listed as carcinogens or suspected carcinogens by IARC, NTP or OSHA.

<u>Medical Conditions Aggravated by Exposure</u>: Individuals with respiratory disease, including but not limited to, asthma and bronchitis, or subject to eye irritation should be excluded from exposure.

Signs and Symptoms of Exposure: Overexposure to nuisance dusts may cause mucous membrane and respiratory irritation, cough, sore throat, nasal congestion, sneezing and shortness of breath.

SECTION 4: FIRST AID

<u>Gross Inhalation</u>: Remove victim to fresh air. If breathing has stopped, perform artificial respiration. If breathing is difficult have qualified personnel administer oxygen. Get prompt medical attention.

Skin Contact: No first aid should be needed since this product does not affect the skin. Wash exposed skin with soap and water before breaks and at the end of the shift.

Eye Contact: Flush the eyes immediately with large amounts of running water, lifting the upper and lower lids occasionally. If irritation persists or for imbedded foreign body, get immediate medical attention.

Ingestion: If large amounts are swallowed, get immediate medical attention.

SECTION 5: FIRE AND EXPLOSION DATA

Flash Point (Method Used): Fully oxidized, will not burn.

Autoignition Temp: Will not burn.

Flammable Limits: LEL: Not applicable UEL: Not applicable

Extinguishing Media: This product will not burn but is compatible with all extinguishing media. Use any media that is appropriate for the surrounding fire.

Special Fire Fighting Procedures: None required with respect to this product. Firefighters should always wear self-contained breathing apparatus for fires indoors or in confined areas.

Unusual Fire and Explosion Hazards: None.

Hazardous Combustion Products: None.

SECTION 6: ACCIDENTAL RELEASE MEASURES

If uncontaminated, collect using dustless method (HEPA vacuum or wet method) and place in appropriate container for use. If contaminated: a) use appropriate method for the nature of contamination, b) consider possible toxic or fire hazards associated with the contaminating substances. Collect for disposal.

SECTION 7: HANDLING AND STORAGE

Avoid breathing dust. Use normal precautions against bag breakage or spills of bulk material. Avoid creation of respirable dust. Use good housekeeping in storage and use areas to prevent accumulation of dust in work area.

Use adequate ventilation and dust collection. Maintain and use proper, clean respiratory equipment (See Section 8). Launder clothing that has become dusty. WARN and TRAIN employees in accordance with state and federal regulations.

WARN YOUR EMPLOYEES (AND YOUR CUSTOMERS - USERS IN CASE OF RESALE) BY POSTING AND OTHER MEANS OF THE HAZARDS AND OSHA PRECAUTIONS TO BE USED. PROVIDE TRAINING FOR YOUR EMPLOYEES ABOUT OSHA PRECAUTIONS.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation: Use local exhaust as required to maintain exposures below applicable occupational exposure limits. See also ACGIH "Industrial Ventilation - A Manual for Recommended Practice", (current edition).

<u>Respiratory Protection</u>: Use appropriate respiratory protection for respirable particulates based on consideration of airborne workplace concentrations and duration of exposure. Refer to the most recent standards of ANSI (Z88.2) OSHA (29 CFR 1910.134), MSHA (30 CFR Parts 56 and 57) and NIOSH Respirator Decision Logic.

Gloves: Protective gloves recommended.

Eye Protection: Safety glasses or goggles recommended.

Other Protective Equipment/Clothing: As appropriate for the work environment. Dusty clothing should be laundered before reuse.

9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: White powder, odorless.

<u>pH</u>: Not applicable <u>Boiling Point</u>: Not applicable <u>Melting Point</u>: 1223°C / 2233°F <u>Solubility in Water</u>: Negligible <u>Percent Volatile</u>: 0% Specific Gravity (water=1): 2.61 Vapor Pressure: Not applicable Vapor Density: Not applicable Evaporation Rate: Not applicable

SECTION 10: STABILITY AND REACTIVITY

<u>Stability</u>: Stable <u>Conditions to Avoid</u>: None <u>Incompatibility</u>: None known.

Hazardous Decomposition Products: None.

Hazardous Polymerization: Will not occur. Conditions to Avoid: None

SECTION 11: TOXICOLOGICAL INFORMATION

No acute toxicity data is available for product or components. Refer to Section 3 for health hazard information.

SECTION 12: ECOLOGICAL INFORMATION

No ecotoxicity data is available. This product is not expected to present an environmental hazard.

SECTION 13: DISPOSAL

<u>Waste Disposal Method</u>: If uncontaminated, dispose as an inert, non-metallic mineral. If contaminated, dispose in accordance with all applicable local, state/provincial and federal regulations.

SECTION 14: TRANSPORTATION DATA

U.S. DOT HAZARD CLASSIFICATION

Proper Shipping Name: Not Regulated Technical Name: N/A UN Number: N/A Hazard Class/Packing Group: N/A Labels Required: None DOT Packaging Requirements: N/A Exceptions: N/A

SECTION 15: OTHER REGULATORY INFORMATION

SARA 311/312: Hazard Categories for SARA Section 311/312 Reporting: Not applicable

SARA 313 This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under the SARA Section 313 (40 CFR 372): None

CERCLA Section 103 Reportable Quantity: None

California Proposition 65: This product does not contain substances regulated under California Proposition 65.

<u>Toxic Substances Control Act</u>: All of the components of this product are listed on the EPA TSCA Inventory or exempt from notification requirements.

<u>European Inventory of Commercial Chemical Substances</u>: All of the components of this product are listed on the EINECS Inventory or exempt from notification requirements.

<u>Canadian Environmental Protection Act</u>: All the components of this product are listed on the Canadian Domestic Substances List or exempt from notification requirements.

Japan MITI: All of the components of this product are existing chemical substances as defined in the Chemical Substance Control Law.

Australian Inventory of Chemical Substances: All of the components of this product are listed on the AICS inventory or exempt from notification requirements.

Canadian WHMIS Classification: Not a controlled product.

16: OTHER INFORMATION

European Community Labeling Classification: N/A

European Community Risk and Safety Phrases: None

NFPA Hazard Rating:	Health: 0	Fire: 0	Reactivity: 0
HMIS Hazard Rating:	Health: 0	Fire: 0	Reactivity: 0

References:

Registry for Toxic Effects of Chemical Substances (RTECS), 1998 Patty's Industrial Hygiene and Toxicology NTP Seventh Annual Report on Carcinogens, 1994 Hawley's Condensed Chemical Dictionary, twelfth edition Toxline Database, NLM, 1998

Revision Summary: Section 2 - Exposure limits, Correction to Emergency Overview, Section 3.

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