MATERIAL SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCEIPREPARATION AND OF THE COMPANY/ UNDERTAKING

PRODUCT NAME: Nepheline Syenite - various grades
SYNONYMS: Anhydrous sodium potassium alumina silicate, Inorganic feldspathic mineral
Date Prepared: November 2017

SECTION 2: HAZARDS IDENTIFICATION

This product is a chemically inert, non-combustible mineral.

EMERGENCY OVERVIEW
WARNING!

Excessive inhalation of dust may cause mucous membrane and respiratory irritation and lung injury with symptoms of
Shortness of breath and reduced pulmonary function. See "Health Hazards" in Section 11 for detailed information.
Avoid creating dust when handling, using or storing. Use with adequate ventilation to keep exposure below recommended
Exposure limits.
EU Classification of Substance/ Preparation: Not classified as a dangerous preparation.

SECTION 3: COMPOSITIONIINFORMAT10N ON INGREDIENTS

CAS# / EINECS #	Component	Percentage	EU Classification (67/548/EEC)
37244-96-5/ (No EINECS #)	Nepheline Syenite	100%	Not Applicable

SECTION 4: FIRST AID MEASURES

Gross Inhalation: 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 dermal contact with 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: FIREFIGHTING MEASURES

Extinguishing Media: This product will not bum 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

Wear appropriate protective equipment. 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, and b) consider possible toxic or fire hazards associated with the contaminating substances. Collect for appropriate 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, use, clean and fit test respirators in accordance with OSHA regulations. Maintain and test ventilation and dust collection equipment. Launder clothing that has become dusty. Empty containers (bags, bulk containers, storage tanks, etc.) retain product residue and must be handled in accordance with the provisions of this Material Safety Data Sheet. WARN and TRAIN employees in accordance with state and federal regulations.

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

SECTION 8: EXPOSURE CONTROLSIPERSONAL PROTECTION

Exposure Limits
Definitions:
MSHA means Mine Safety and Health Administration.
NIOSH means National Institute for Occupational Safety and Health.
Ontario OEL means "Occupational Exposure Limit" established by the Ontario Ministry of Labour ("MOL")
OSHA means Occupational Safety and Health Administration.
PEL means OSHA Permissible Exposure Limit.
REL means the NIOSH Recommended Exposure Limit.
TLV means American Conference of Governmental Industrial Hygienists (ACOIH) Threshold Limit Value.
TWA means time-weighted average.
Ontario OEL - 10 *mg!* m3 (total dust)
PEL - 5 mg/m3 TWA (respirable fraction), 15 *mg! M3* TWA (total dust) as Particulates not otherwise Regulated
TLV- None established (refer to ACGIH guidance for Particulates (insoluble or poorly soluble) Not Otherwise Specified)
MSHA - 10 mg! m3 TWA as Nuisance Particulates
Ventilation: Use local exhaust as required to maintain exposures below applicable occupational exposure limits. See also ACOrn "Industrial Ventilation - A Manual for Recommended Practice" (current edition). Control of

exposure to dust must be accomplished as far as feasible by accepted engineering control measures (for example, enclosure or confinement of the operation, general or local exhaust ventilation and substitution of less toxic materials).
Respiratory Protection: When effective engineering controls are not feasible, or while they are being implemented, appropriate respiratory protection must be used. Use appropriate respiratory protection for respirable particulates based on consideration of airborne workplace concentrations and duration of exposure arising from intended end use. 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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: White powder, odorless.
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PH: Not applicable
Boiling Point: Not applicable
Melting Point: 1223°C /2233°F
Solubility in Water: Negligible
Percent Volatile: 0%
Autoignition Temp: Will not bum

Specific Gravity (water=l): 2.61
Vapor Pressure: Not applicable
Vapor Density: Not applicable
Evaporation Rate: Not applicable
Flash Point (Method Used): Fully oxidized, will not bum
Flammable Limits: LEL: Not applicable
UEL: Not applicable

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable
Conditions to Avoid: None.
Incompatibility: None known
Hazardous Decomposition Products: None known.
Hazardous Polymerization: Will not occur.
Conditions to Avoid: None

SECTION 11: TOXICOLOGICAL INFORMATION

HEALTH HAZARDS:
Specific Gravity (water=l): 2.61
Vapor Pressure: Not applicable
Vapor Density: Not applicable
Evaporation Rate: Not applicable
Flash Point (Method Used): Fully oxidized, will not bum
Flammable Limits: LEL: Not applicable
UEL: Not applicable
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.

Chronic Health Effects: Prolonged overexposure to any nuisance dust may cause lung injury. Symptoms include cough, shortness of breath, and reduced pulmonary function.
Cancer Status: None of the components of this product are listed as carcinogens or suspected carcinogens by IARC, NTP or OSHA.
Medical Conditions Aggravated by Exposure: 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.
Acute Toxicity Values: No acute toxicity data is available for product.

SECTION 12: ECOLOGICAL INFORMATION

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

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Nepheline Syenite is not classified as a hazardous waste under US EPA RCRA regulations. If uncontaminated, dispose as an inert, non-metallic mineral. If contaminated, dispose in accordance with all applicable local, state/provincial and federal regulations in light of the contamination present. Local regulations may be more stringent than regional and national requirements. It is the responsibility of the waste generator to determine the toxicity and physical characteristics of the material to determine the proper waste identification and disposal in compliance with applicable regulations.

SECTION 14: TRANSPORT INFORMATION

Based on International Air Transport Association (IATA).
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: 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.
Toxic Substances Control Act: All of the components of this product are listed on the EPA TSCA Inventory or exempt from pre manufacture notification requirements.
European Inventory of Commercial Chemical Substances: All of the components of this product are listed on the EINECS
Inventory or exempt from notification requirements.
European Community Labeling: No labeling required.
Canadian Environmental Protection Act: All the components of this product are listed on the Canadian Domestic Substances
List or exempt from notification requirements.
Canadian WHMIS Classification: Not a controlled product.

Japan METI: All of the components of this product are existing chemical substances as defined in the Chemical Substance
Control Law.
Australian National Occupational Health & Safety Commission Status: Not classified as hazardous according to the criteria of Australian National Occupational Health & Safety Commission.
Australian Inventory of Chemical Substances: All of the components of this product are listed on the AICS inventory or exempt from notification requirements.
Korea: All of the components of this product are listed on the ECL inventory or exempt from notification requirements.
Philippines: All of the components of this product are listed on the PICCS inventory or exempt from notification requirements.

SECTION 16: OTHER INFORMATION

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), 2012
Patty's Industrial Hygiene and Toxicology
NTP Twelfth Report on Carcinogens, 20 II
Hazardous Substances Data Bank (HSDB), 2012
Toxline, 2012
Revision Summary: Section 16 updated references.
