MATERIAL SAFETY DATA SHEET

Identity (As used on Label and List)
Nepheline Syenite APEX™, MINEX® and various Ceramic and Glass Grade Designations

SECTION I:

Manufacturer's Name
UNMIN CANADA LTD.
Address: Number, Street, City, State and ZIP Code
5343 Dundas Street, West - Suite 400
Etobicoke, Ontario, Canada M4W 3L4

Emergency Telephone Number
(416) 232-2003
Telephone Number for Information
(416) 232-2003
Date Prepared
May 20, 1992

Components: [Specific Chemical Identity: (Na,K) AlSiO₃ - Nepheline, NaAlSi O₃ - Albite, KAlSi O₃ - Microcline]; Common Name(s): Nepheline Syenite, an inorganic feldspathic mineral, CAS# 37244-96-5.
Not known to contain any hazardous components.

OSHA PEL
AOGIH TLV
Nepheline Syenite -none established- 10mg/m³ (Total particulates not otherwise classified)

See Threshold Limit Value and Biological Exposure Indices (current edition) American Conference of Governmental Industrial Hygienists.

Naturally Occurring Contaminants (Values in ppm)
- Antimony - 0.2
- Arsenic** - < 4.0
- Barium - 3.3
- Cadmium - < 0.2
- Chromium - < 0.5
- Lead** - < 3.0
- Mercury - < 0.1
- Selenium - 10.0
- Silver - < 0.3

SECTION III: PHYSICAL CHEMICAL CHARACTERISTICS

Boiling Point: Not Applicable
Specific Gravity (H₂O=1): 2.61
Vapor Pressure (mm Hg.): Not Applicable
Melting Point: 1223°C/2233.4°F
Vapor Density (AIR=1): Not Applicable
Evaporation Rate (Butyl Acetate=1): Not Applicable
Solubility in Water: Negligible
Appearance and Odor: White — No odor

** Contains naturally occurring trace amounts of metal listed in California’s Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) in concentrations listed above.
SECTION IV: FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used): Fully oxidized, will not burn.
Flammable Limits: Fully oxidized, will not burn.
LEL: Fully oxidized will not explode.
UEL: Fully oxidized will not explode.
Extinguishing Media: Fully oxidized, will not burn.
Special Fire Fighting Procedures: None
Unusual Fire and Explosion Hazards: None

SECTION V: REACTIVITY DATA

Stability: Stable
Conditions to Avoid: None
Incompatibility (Materials to Avoid): None
Hazardous Decomposition or Byproducts: None
Hazardous Polymerization: Will not occur
Conditions to Avoid: Not Applicable

SECTION VI: HEALTH HAZARD DATA

Route(s) of Entry: Inhalation? Yes Skin? No Ingestion? No

Health Hazards (Acute and Chronic):
Excessive or prolonged inhalation of dust may result in harm or injury to the respiratory system.

Carcinogenicity:
NTP? No
IARC Monographs? No
OSHA Regulated? No

Signs and Symptoms of Exposure:
Symptoms of excessive exposure include shortness of breath and reduced pulmonary function. This inert material gives no potential acute toxic hazard.

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

Emergency and First Aid Procedures:
Eyes—Flush with water. Gross Inhalation—Remove to fresh air. Give oxygen with artificial respiration as needed. Seek medical attention for treatment, observation and support as needed.

SECTION VII: PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material Is Released or Spilled:
If uncontaminated—collect, using dustless method (water or vacuum). If contaminated—use appropriate method in light of nature of contamination. Use appropriate container.

Waste Disposal Method:
If uncontaminated, dispose as an inert, non-metallic mineral. If contaminated—use appropriate method in light of contamination in accordance with federal, state, and local laws.
Cautions to Be Taken in Handling and Storing:

Normal precautions against bag breakage or spills of bulk material. Avoid creation of respirable dust.

Other Precautions:

Use adequate ventilation and dust collection. Do not permit dust to accumulate in work area. Maintain and use proper and clean respiratory equipment. Clean clothing which has become dusty. See Section VIII. WARN and TRAIN your EMPLOYEES and WARN your CUSTOMERS (in the event of resale) in accordance with all applicable federal and state "Right to Know" laws and regulations.

Respiratory Protection (Specify Type):

Use conventional particulate respiratory protection based on considerations of airborne concentrations and duration of exposure. See most recent standards of the American National Standard Institute (ANSI Z.88.2), the Occupational Safety and Health Administration (OSHA) (29 CFR Part 1910.134), the Mine Safety and Health Administration (MSHA) (30 CFR Part 56) and the National Institute for Occupational Safety and Health (NIOSH) (NIOSH Pocket Guide to Chemical Hazards).

Ventilation:

Local Exhaust: To meet PEL requirements
Special: Not Applicable
Mechanical (General): To meet PEL requirements
Other: To meet PEL requirements

Protective Gloves: Recommended
Eye Protection: Recommended
Other Protective Clothing or Equipment: As appropriate in light of specific application.
Work/Hygienic Practices: Avoid creating and breathing dust.

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