MATERIAL SAFETY DATA SHEET

ALDON CORPORATION
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MSDS No. PP 650
Effective Date July 7, 1998

SECTION I NAME

Product	POTASSIUM NITRATE
Chemical Synonyms	Potash Nitrate, Saltpeter
Formula	KNO_3
Unit Size	up to 2.5 Kg.
C.A.S. No.	7757-79-1

24 HOUR EMERGENCY ASSISTANCE

CHEMTREC **800-424-9300**
Day 716-226-6177

NFPA (Health 1, Fire 0, Reactivity 0, Special: oxy)

HMIS *

Health	1
Fire	0
Reactivity	3

HAZARD RATING: LEAST 0 · SLIGHT 1 · MODERATE 2 · HIGH 3 · EXTREME 4

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Potassium Nitrate	100%	See Section V.
WARNING! STRONG OXIDIZER! HARMFUL IF SWALLOWED.		
CONTACT WITH COMBUSTIBLE MATERIAL MAY CAUSE FIRE		
OR EXPLOSION.		

SECTION III PHYSICAL DATA

Melting Point (°F)	334°C (633°F)	Specific Gravity (H_2O = 1)	2.109 @ 16°C
Boiling Point (°F)	Decomposes 400°C (752°F)	Percent Volatile by Volume (%)	Non-volatile (NA).
Vapor Pressure (mm Hg)	Negligible as solid.	Evaporation Rate (=1)	Non-volatile (NA).
Vapor Density (Air=1)	3.5		
Solubility in Water	35.5 grams per 100 mL. water at 20°C.		
Appearance & Odor	Colorless to white crystals or granules; no odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Flammable Limits in Air % by Volume	Lower	Upper
Non-flammable (NA).	NA	- - - - - - - -	- - - - - - - -

Extinguisher Media: Flood with water spray or fog; dry chemical (ABC); carbon dioxide (CO_2).

SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus. Use flooding amounts of water in early stages of fire. When large quantities are involved in fire, nitrates may fuse or melt, in which condition, application of water may result in extensive scattering of molten material.

(1996 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.7, GUIDE PAGE NO. 140)

UNUSUAL FIRE AND EXPLOSION HAZARDS

Oxidizing material. In contact with easily oxidizable substances it may react rapidly enough to cause ignition, violent combustion or explosion. Increases the flammability of any combustible substance. Yields toxic gaseous oxides of nitrogen when involved in fire.

D.O.T. **POTASSIUM NITRATE, 5.1, UN 1486, PG |||**

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

SECTION V HEALTH HAZARD DATA

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Threshold Limited Value
None established. (ACGIH 1992-93). Nuisance dust: respirable fraction - 5 mg/m^3, total dust - 15 mg/m^3. RTECS No. TT3700000 Toxicity data: Orl-rat LD50 3750 mg/kg, orl-rbt LD50 1901 mg/kg.

Effects of Overexposure
EYES AND SKIN: Mildly irritating to skin, eyes and mucous membranes. **INHALATION:** Prolonged inhalation of dust may cause irritation. **INGESTION:** Of large amounts, cause violent gastroenteritis. Prolonged exposure to small amounts may produce anemia, methemoglobinemia, nephritis.

Emergency and First Aid Procedures
INGESTION: If swallowed, if conscious, give water to drink, induce vomiting and call physician. Never give anything by mouth to an unconscious person. **EYES:** Flush thoroughly with water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention. **SKIN:** Flush thoroughly with water, then wash with mild soap and water. **INHALATION:** Remove to fresh air. If symptoms of illness develop, get medical attention.

SECTION VI REACTIVITY DATA

Stability			Conditions to Avoid
	Unstable		Mixtures with reducing agents may detonate by heat or shock.
	Stable	X	

Incompatibility (Materials to Avoid): Reducing agents, combustible material, flame, heat. (Sodium Hyposulfite; Lead Phosphite; Tin solder).

Hazardous Decomposition Products: When involved in fire, yields toxic gaseous oxides of nitrogen.

Hazardous Polymerization		Conditions to Avoid
May Occur	Will Not Occur	Not applicable.
	X	

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled
Recover dry if possible, dispose of in appropriate manner. Immediately sweep up and place in a suitable container for proper disposal.

Waste Disposal Method
Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

Dispose of in accordance with federal, state and local regulations.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type): Not needed for normal laboratory handling. If dusty conditions prevail, work in fume hood or wear NIOSH/MSHA-approved dust mask.

Ventilation				
	Local Exhaust	Recommended.	Special	No.
	Mechanical (General)	Recommended.	Other	No.

Protective Gloves: General purpose work gloves. **Eye Protection:** Chemical safety glasses.

Other Protective Equipment: Smock, apron, eye wash station, proper gloves, fire extinguisher.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing
Keep container tightly closed when not in use.
Store in a cool, dry place away from reducing agents, organic material and fire hazards. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling.

Other Precautions
Read label on container before using. Do not wear contact lenses when working with chemicals.

Use with adequate ventilation. Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision	Date	Approved	Chemical Safety Coordinator
No. 5	7/7/98	Michael Raszeja	MR