

MATERIAL SAFETY DATA SHEET
Part # PHFS-N03

SECTION I: GENERAL INFORMATION

PRODUCT NAME: Reference Fill Solution, 1M KNO₃

CHEMICAL NAME: Potassium Nitrate in Water

CHEMICAL FAMILY: salt solution

DOT SHIPPING INFO: none

IATA SHIPPING INFO: none

SECTION II: INGREDIENTS

CAS NO.	%	CHEMICAL NAME(S)	LD50 (mg/kg) oral-rat	OSHA/PEL ACGIH TLV
7757-79-1	10.00%	Potassium Nitrate	913	none
7732-18-5	90.00%	Water	-	none

SECTION III: PHYSICAL DATA

BOILING POINT: 104°C

SPECIFIC GRAVITY: 1.1

VAPOR PRESSURE: N/A

FREEZING POINT: -4°C

VAPOR DENSITY: N/A

pH: 5.5-8

WATER SOLUBILITY: Soluble

APPEARANCE & ODOR: Clear, odorless gel-like solution

SECTION IV: FIRE & EXPLOSION HAZARD DATA

FLASHPOINT: Not flammable

AUTOIGNITION TEMPERATURE: N/A

EXTINGUISHING MEDIA: Water, CO₂, dry chemical

SPECIAL FIRE FIGHTING PROCEDURES: N/A

UNUSUAL FIRE & EXPLOSION HAZARDS: Nitrate may render other materials more combustible if allowed to dry out upon them.

SECTION V: HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE: Dizziness, nausea, weakness if taken internally.

EMERGENCY & FIRST AID: Wash off affected area with water or induce vomiting if ingested.

EYES & SKIN: Wash off with large amounts of water for 15 minutes.

INGESTION/INHALATION: Internal-induce vomiting. Consult physician.

SECTION VI: REACTIVITY DATA

STABLE: yes

CONDITIONS TO AVOID: Storing near heat or incompatible chemicals

INCOMPATIBILITY: Reducing agents, B, BaS, Na acetate, Ti, S, trichloroethylene, charcoal

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of nitrogen upon heating to decomposition

HAZARDOUS POLYMERIZATION: Will not occur

SECTION VII: SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Dilute with water, and cover with soda ash, mix and scoop into a beaker of water, neutralize with HCl and wash down drain with excess water.

WASTE DISPOSAL METHOD: Add to a large container of water, stir in slight excess of soda ash. Let stand 24 hours. Neutralize with 6M HCl and wash down drain with excess water. Observe all federal, state, and local laws.

SECTION VIII: SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: N/A

VENTILATION: N/A

PROTECTIVE GLOVES: N/A

EYE PROTECTION: Safety goggles

OTHER PROTECTIVE EQUIPMENT: N/A

SECTION IX: SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING & STORAGE: Store at room temperature and keep cap tightly sealed to protect product integrity.

OTHER PRECAUTIONS: Potassium nitrate is listed in table 172.101 of Title 49 CFR.

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