



MATERIAL SAFETY DATA SHEET

SD0N32-xxx

Section I. Product Identification

Product Name: 1000ppm Nitrate Standard solution (NO ₃ ⁻)	Catalog No. SD2030-MSDS	Effective Date 10/25/02
Hazardous Shipment Labeling: DOT None	IATA None	
Prepared by 	Title Quality Assurance Chemist	
Approved by 	Title Director Regulatory Matters	

Section II - Hazard Ingredients/Identity Information

Hazardous Components Specific Chemical Identity; Common Name(s)	CAS No.	%	OSHA PEL	ACGIH TLV	LD ₅₀
Potassium Nitrate (KNO ₃)	7757-79-1	<0.8	None Listed	None Listed	3,750 (ORL-RAT)
Magnesium Sulfate (MgSO ₄)	10034-99-8	<0.1	None Listed	None Listed	NA
Deionized Water (H ₂ O)	7732-18-5	99.1	None Listed	None Listed	190,000 (IPR-MUS)

Section III - Physical/Chemical Characteristics

Boiling Point 750mm Hg	100°C	Freezing Point	0°C
Specific Gravity (H ₂ O = 1)	1.0	Vapor Pressure at	NA
pH at 25 °C	(5.5 – 8.0)	Solubility in water, % by wt at 25°C	Miscible
Volatiles, % by wt	NA	Evaporation Rate (Butyl Acetate = 1)	NA
Vapor Density (AIR = 1) NA			
Appearance and Odor Clear, colorless, odorless solution			

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used) Not flammable	Flammable Limits	LEL NA	UEL NA
Extinguishing Media Dry chemical, water, foam or CO ₂			
Special Fire Fighting Procedures None, this solution is non-flammable.			
Unusual Fire and Explosion Hazards Nitrate may render other materials more combustible if allowed to dry out upon them.			

Section V - Reactivity Data

Stability		Conditions to Avoid
Unstable	Stable X	Storing near incompatible materials
Incompatibility (Materials to Avoid): Reducing agents, sulfur, charcoal, trichloroethylene		
Hazardous Decomposition or Byproducts Oxides of nitrogen upon heating to decomposition		
Hazardous Polymerization		Conditions to Avoid
May Occur	Will Not Occur X	None



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Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation? No	Skin? No	Ingestion? Yes
Health Hazards (Acute and Chronic) Low hazard because of the low concentration of salt in this product. Large oral doses may cause anemia, nephritis and methemoglobinemia. No serious, acute, or chronic effects with either external or inhalation exposure.			
Carcinogenicity: Not found on these lists.	NTP?	IARC Monographs?	OSHA Regulated?
Signs and Symptoms of Exposure Dizziness, nausea, weakness if taken in large oral doses			
Medical Conditions Generally Aggravated by Exposure Kidney or heart problems			
Emergency and First Aid Procedures Skin and eyes - Wash off contact area with large amounts of water for 15 minutes. If ingested, induce vomiting. Consult a physician.			

Section VII - Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled	Dilute with water and vacuum up area.
Waste Disposal Method	Observe all Federal, State and local laws when disposing of this product.
Precautions to Be taken in Handling and Storing Store at room temperature and keep cap tightly sealed to protect product integrity. NFPA Rating: Scale (0-4); Health - 0, Fire - 0, Reactivity - 0, Specific - None.	
Other Precautions NOTE: Potassium Nitrate is listed in TABLE 712.101 of TITLE 49CFR. Not listed in Cal. Prop. 65. Components are reported in EPA TSCA inventory.	

Section VIII - Control Measures

Respiratory Protection (Specify Type)	None		
Ventilation	Local Exhaust	None	Special None
	Mechanical (General)	None	Other None
Protective Gloves	No	Eye Protection	Safety Glasses
Other Protective Clothing or Equipment No			
Work/Hygienic Practices Emergency eyewash should be available. Wash hands after working with this product. No eating or drinking while working with this product.			