



# MATERIAL SAFETY DATA SHEET

RF0CL1-xxx

## Section I. Product Identification

<b>Product Name:</b> Reference Filling Solution	<b>Catalog No.</b> RF0007-MSDS	<b>Effective Date</b> 10/01/02
<b>Hazardous Shipment Labeling:</b> DOT IATA Testing by Bureau of Explosives has indicated this is not an Oxidizer.		
<b>Prepared by</b> 	<b>Title</b> Quality Assurance Chemist	
<b>Approved by</b> 	<b>Title</b> Director Regulatory Matters	

## Section II - Hazard Ingredients/Identity Information

Hazardous Components Specific Chemical Identity; Common Name(s)	CAS No.	%	OSHA PEL	ACGIH TLV	LD <sub>50</sub>
Potassium Nitrate (KNO <sub>3</sub> )	7757-79-1	10	None Listed	None Listed	100 (IVN-CAT)
Triton X-100 (C <sub>32</sub> H <sub>58</sub> O <sub>11</sub> )	9002-93-1	Trace	None Listed	None Listed	1800-LD50 (ORL-RAT)
Thymol (C <sub>10</sub> H <sub>14</sub> O)	89-83-8	Trace	None Listed	None Listed	None Listed
Deionized Water (H <sub>2</sub> O)	7732-18-5	90	None Listed	None Listed	629,000 (ORL-DOG)

## Section III - Physical/Chemical Characteristics

<b>Boiling Point 750mm Hg</b>	100°C	<b>Freezing Point</b>	-4°C
<b>Specific Gravity (H<sub>2</sub>O = 1)</b>	1.06	<b>Vapor Pressure at</b>	NA
<b>pH at 25 °C</b>	(5.5 - 7.5)	<b>Solubility in water, % by wt at 25°C</b>	Miscible
<b>Volatiles, % by wt</b>	NA	<b>Evaporation Rate (Butyl Acetate = 1)</b>	NA
<b>Vapor Density (AIR = 1)</b> NA			
<b>Appearance and Odor</b> Odorless liquid			

## Section IV - Fire and Explosion Hazard Data

<b>Flash Point (Method Used)</b> NA	<b>Flammable Limits</b>	<b>LEL</b> NA	<b>UEL</b> NA
<b>Extinguishing Media</b> Any			
<b>Special Fire Fighting Procedures</b> NA			
<b>Unusual Fire and Explosion Hazards</b> Nitrate may render other materials more combustible if allowed to dry out upon them.			

## Section V - Reactivity Data

<b>Stability</b>		<b>Conditions to Avoid</b>
Unstable	Stable X	Storing near heat or incompatible chemicals
<b>Incompatibility (Materials to Avoid):</b> Reducing agents, B, BaS, Na Acetate, Ti, S, Trichloroethylene, Charcoal		
<b>Hazardous Decomposition or Byproducts</b> Oxides of nitrogen upon heating to decomposition.		
<b>Hazardous Polymerization</b>		<b>Conditions to Avoid</b>
May Occur	Will Not Occur X	NA



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## Section VI - Health Hazard Data

<b>Route(s) of Entry:</b>	<b>Inhalation?</b> No	<b>Skin?</b> No	<b>Ingestion?</b> No
<b>Health Hazards (Acute and Chronic)</b> Acute: Large amounts taken internally may be fatal or cause dizziness, cramps, convulsions, vomiting, weakness and collapse. Chronic: Can cause anemia, nephritis and methemoglobinemia.			
<b>Carcinogenicity:</b> Not found on these lists.	<b>NTP?</b>	<b>IARC Monographs?</b>	<b>OSHA Regulated?</b>
<b>Signs and Symptoms of Exposure</b> Dizziness, nausea, weakness; no serious acute or chronic affects with either external or inhalation exposure.			
<b>Medical Conditions Generally Aggravated by Exposure</b> Kidney or heart problems			
<b>Emergency and First Aid Procedures</b> Skin and eyes - Wash off with large amounts of water for 15 minutes. If ingested - Induce vomiting. Consult a physician.			

## Section VII - Precautions for Safe Handling and Use

<b>Steps to Be Taken in Case Material is Released or Spilled</b>	Clean up and store for disposal.
<b>Waste Disposal Method</b>	Wash down drain if local law allows.
<b>Precautions to Be taken in Handling and Storing</b> Store at room temperature and keep cap tightly sealed to protect product integrity. NFPA Rating: Scale (0-4); Health - 2, Fire - 1, Reactivity -0, Specific - None.	
<b>Other Precautions</b> Note: Potassium Nitrate is listed in Table 172.101 of Title 49CFR. CAL. Prop 65 does not affect this product. Components are listed in, EPA TSCA inventory.	

## Section VIII - Control Measures

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