



MATERIAL SAFETY DATA SHEET

Section I. PRODUCT IDENTIFICATION

Product Name: Solution, DT118 Galvanic DO Internal Fill Solution		Catalog No. 331027	Effective Date Jan, 11 2012
Hazardous Shipment Labeling:	DOT None	IATA None	
Prepared by YX Zhu	Title: Chemist		
Approved by Peter Cai	Title: Director Regulatory Compliance		

Section II. HAZARDOUS INGREDIENTS/Identity Information

Hazardous Components* Specific Chemical Identity; Common Name(s)	CAS No.	%	OSHA PEL	ACGIH TLV	LD ₅₀ mg/Kg
Sodium Hydroxide (NaOH)	1310-73-2	2.0	2 mg/m ³	2 mg/m ³	500 (ORL-RBT)
Ethylene Glycol (C ₂ H ₆ O ₂)	107-21-1	<65	50 ppm	100 mg/m ³	4,700 (ORL-Rat)
Deionized Water (H ₂ O)	7732-18-5	>33	None Listed	None Listed	190,000 (IPR-MUS)

Section III. PHYSICAL/CHEMICAL DATA AND CHARACTERISTICS

Boiling Point at 760 mmHg	NA	Freezing Point	NA
Specific Gravity (H ₂ O = 1)	NA	Vapor Pressure at 25°C	NA
pH at 25°C	Strongly alkaline	Solubility in water, % by wt	Miscible
Volatiles, % by wt	NA	Evaporation Rate (Butyl Acetate = 1)	NA
Vapor Density (AIR = 1)	NA		
Appearance and Odor	Clear, colorless, odorless liquid		

Section IV. FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	NA	Flammable Limits	LEL	NA	UEL	NA
Extinguishing Media	Dry chemical, water, foam, or CO ₂ .					
Special Fire Fighting Procedures	Move containers away if possible. As in any fire, wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.					
Unusual Fire and Explosion Hazards	May be considered a fire hazard when exposed to heat or powerful oxidizers.					

*Chemicals that are not classified as hazardous by U.S. OSHA guidelines (29 CFR Parts 1915.2 or 1916.2) will not necessarily be listed herein even though one or more may be in this product.

** Non-hazardous component

NA = Not available/Not applicable



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Section V. REACTIVITY DATA

Stability: Unstable	Stable X	Conditions to Avoid: Heat, oxidizers
Incompatibility (<i>Materials to Avoid</i>)	oxidizers, acids	
Hazardous Decomposition or Byproducts	NA	
Hazardous Polymerization:		Conditions to Avoid:
May Occur	Will Not Occur X	

Section VI. HEALTH HAZARD DATA

Route(s) of Entry:	Inhalation? Yes-vapors corrosive	Skin? Yes-burns	Ingestion? Yes-corrosive
Health Hazards (<i>Acute and Chronic</i>)	If swallowed, may cause CNS depression, vomiting, headache, rapid respiratory and heart rate, lowered blood pressure, stupor, collapse, and unconsciousness with convulsions. Sodium hydroxide is strongly corrosive; swallowing may cause severe burns of mouth, throat, and stomach. Effects from inhalation of mist vary from mild irritation to serious damage of the upper respiratory tract, depending on severity of exposure. Contact with skin can cause irritation or severe burns and scarring with greater exposures. Contact with eye may cause irritation of eyes, and with greater exposures it can cause burns that may result in permanent impairment of vision, even blindness.		
Carcinogenicity:	NTP? Not found	IARC Monographs? Not found	OSHA Regulated? Not found
Signs and Symptoms of Exposure	Burns of skin, eyes, mucous membranes.		
Medical Conditions Generally Aggravated by Exposure	Kidney problem, skin allergy, destructive effect on tissue,		
Emergency and First Aid Procedures	All: <u>get medical attention</u> . Inhalation: fresh air, artificial respiration if necessary. Skin: flush with large amounts of water (at least 15 minutes) while removing contaminated clothing. Eyes: flush with large amounts of water while lifting lids (15-20 minutes). Ingestion: get medical attention immediately.		

Section VII. PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material is Released or Spilled;	cover with dry sand. Mix and collect in a well-marked metal or glass container. Close tightly. Submit or retain for waste disposal.
Waste Disposal Method	Consult Federal, State, and local laws when disposing of this product.
Precautions to Be taken in Handling and Storing;	Keep cool and well-sealed.
Other Precautions	NA

Section VIII. CONTROL MEASURES

Respiratory Protection (<i>Specify Type</i>)	NIOSH/MSHA approved mist respirator as needed. Self-contained breathing apparatus for emergency use.	
Ventilation	Local Exhaust To meet exposure limits	Special None
Ventilation	Mechanical (<i>General</i>) None	Other None
Protective Gloves	Yes-impervious gloves	Eye Protection Splash proof safety glasses
Other Protective Clothing or Equipment	Impervious clothing	
Work/Hygienic Practices	Emergency eyewash should be available. Wash hands after working with this product. No eating or drinking in work area.	

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