

Prepared 7-1-87		MATERIAL SAFETY DATA SHEET "ESSENTIALLY SIMILAR" TO OSHA FORM 20			ADDRESS: REACTION ENGINEERING PO Box 1452 Dodge City, KS 67801 Emergency Phone Number(s) Business: (316) 225-2154 Other: (800) 424-9300 Chemtrec	
PRC IDENTIFICATION	Product Name RXN-37	Code No. None		CAS No.(s) Not applicable for blends Chemical Family Water Treating		
	Chemical Name and Molecular Formula PROPRIETARY FORMULATION					
	Synonyms None					
HAZARDOUS INGREDIENTS	MATERIALS OR COMPONENTS		% w/w	HAZARD DATA (TLV, LD50, LC50, etc.)		
	1-HYDROXYETHYLIDENE-1, 1-DIPHOSPHONIC ACID SODIUM HYDROXIDE		< 15 < 10	None established Corrosive Hazard 2 mg/M ³ - OSHA PEL 2 mg/M ³ - ACGIH TLV Corrosive Hazard		
SHIPPING INFORMATION	WATER TREATMENT COMPOUND, LIQUID CORROSIVE MATERIAL NA-1760 Corrosive Label Required					
PHYSICAL TIES	Boiling Point/Range °C 212 °F		Melting Point °C N/E °F		Freezing Point °C N/E °F	
	Specific Gravity (H ₂ O=1) 1.074 @ 20 / 20 °C		Vapor Pressure (mm Hg) °C N/E °F		Molecular Weight (Calculated) N/E	
	Solubility in H ₂ O Complete		% Volatiles by Volume > 50		Evaporation Rate < 1	
FIRE AND EXPLOSION DATA	Flash Point °C None °F		Test Method TOC		Flammable Limits Lower N/A % Upper N/A %	
	Autoignition Temperature/Fire Point °C N/A °F		EXTINGUISHING MEDIA <input checked="" type="checkbox"/> Water-spray <input checked="" type="checkbox"/> Water-fog <input checked="" type="checkbox"/> Water stream <input checked="" type="checkbox"/> CO ₂ <input checked="" type="checkbox"/> Dry chemical <input checked="" type="checkbox"/> Alcohol foam <input checked="" type="checkbox"/> Foam <input checked="" type="checkbox"/> Earth or sand			
	SPECIAL FIRE FIGHTING PROCEDURES <input type="checkbox"/> Do not enter building <input type="checkbox"/> Allow fire to burn <input type="checkbox"/> Water may cause frothing <input type="checkbox"/> Do not use water <input checked="" type="checkbox"/> Use self-contained breathing apparatus None known					
REACTIVITY DATA	UNUSUAL FIRE AND EXPLOSION HAZARDS <input type="checkbox"/> Dust explosion hazard <input type="checkbox"/> Sensitive to shock <input type="checkbox"/> Contamination <input type="checkbox"/> Temperature <input checked="" type="checkbox"/> Other (specify): None known					
	STABILITY <input checked="" type="checkbox"/> Stable <input type="checkbox"/> Unstable		CONDITIONS CONTRIBUTING TO INSTABILITY <input type="checkbox"/> Thermal decomposition <input type="checkbox"/> Photo degradation <input type="checkbox"/> Polymerization <input checked="" type="checkbox"/> Contamination			
	INCOMPATIBILITY - Avoid contact with <input type="checkbox"/> Strong acids <input type="checkbox"/> Strong alkalis <input checked="" type="checkbox"/> Strong oxidizers <input type="checkbox"/> Other (specify):					
SPILL	HAZARDOUS DECOMPOSITION PRODUCTS - THERMAL AND OTHER (list) May evolve CO ₂ , CO ₃ and Phosphines; also Oxides of Nitrogen					
	CONDITIONS TO AVOID <input type="checkbox"/> Heat <input type="checkbox"/> Open flames <input type="checkbox"/> Sparks <input type="checkbox"/> Ignition sources <input checked="" type="checkbox"/> Other (specify): None known					
	STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED <input type="checkbox"/> Flush with water <input checked="" type="checkbox"/> Absorb with sand or inert material <input type="checkbox"/> Neutralize <input checked="" type="checkbox"/> Sweep or scoop up and remove <input type="checkbox"/> Keep upwind. Evacuate enclosed spaces. <input checked="" type="checkbox"/> Prevent spread of spill					
WASTE DISPOSAL METHOD - Consult federal, state, or local authorities for proper disposal procedures. Dispose in accordance with Federal, State and Local regulations.						

 CONTINUED ON
REVERSE SIDE

TOXICITY	Oral (acute)	Irritant, possibly corrosive.				
	Dermal (acute)	Irritant.				
	Eye	Possibly corrosive.		Inhalation (acute)		
	Chronic, Subchronic, etc.					
<p>NOTE: THIS PRODUCT IS <u>NOT</u> CONSIDERED TO BE A CARCINOGEN BY NTP, IARC, OR OSHA.</p>						
HAZARD INFORMATION	PERMISSIBLE EXPOSURE LIMIT (Specify if TLV/TWA or Ceiling [c])					
	ACGIH 10		N/A		OSHA 19	
			N/A		None	
	IRRITATION		<input checked="" type="checkbox"/> Skin	<input checked="" type="checkbox"/> Severe	<input type="checkbox"/> Moderate	<input type="checkbox"/> Mild (transient)
			<input checked="" type="checkbox"/> Eye	<input checked="" type="checkbox"/> Severe	<input type="checkbox"/> Moderate	
	CORROSIVITY		<input type="checkbox"/> Skin	<input type="checkbox"/> 4 hrs. (DOT)	<input type="checkbox"/> 24 hrs. (CPSC)	
			<input checked="" type="checkbox"/> Eye	<input type="checkbox"/> May cause blindness		
	SENSITIZATION		N/E			
	<input type="checkbox"/> Skin		<input type="checkbox"/> Respiratory	<input type="checkbox"/> Allergen	INHALATION EFFECTS	
					<input type="checkbox"/> Narcotic effect	<input type="checkbox"/> Cyanosis
					<input type="checkbox"/> N/E Asphyxiant	
LUNG EFFECTS (Specify):						
N/E						
OTHER (Specify):						
<input type="checkbox"/> Repeated contact-skin defatter <input checked="" type="checkbox"/> Other (Specify): N/E						
HEALTH	INGESTION					
	<input type="checkbox"/> Induce vomiting	<input checked="" type="checkbox"/> Do NOT induce vomiting	<input checked="" type="checkbox"/> Give plenty of water	<input checked="" type="checkbox"/> Get medical attention	<input type="checkbox"/> Other (specify):	
	DERMAL					
	<input checked="" type="checkbox"/> Flush with soap and water	<input checked="" type="checkbox"/> Get medical attention	<input checked="" type="checkbox"/> Contaminated clothing - remove & launder	<input checked="" type="checkbox"/> Contaminated shoes - destroy	<input type="checkbox"/> Other (specify):	
	EYE CONTACT					
	<input checked="" type="checkbox"/> Flush with plenty of water for at least 15 minutes	<input checked="" type="checkbox"/> Get medical attention	<input type="checkbox"/> Other (specify):			
PROTECTION	INHALATION					
	<input checked="" type="checkbox"/> Remove to fresh air	<input checked="" type="checkbox"/> If not breathing, give artificial respiration	<input checked="" type="checkbox"/> Give oxygen	<input checked="" type="checkbox"/> Get medical attention	<input type="checkbox"/> Other (specify):	
	VENTILATION REQUIREMENTS - Always maintain exposure below permissible exposure limits					
	<input type="checkbox"/> Consult an industrial hygienist or environmental health specialist		<input type="checkbox"/> Local exhaust	<input checked="" type="checkbox"/> Use with adequate ventilation	<input checked="" type="checkbox"/> Check for air contaminant and oxygen deficiency	
	<input type="checkbox"/> Other (specify):					
SPECIAL PRECAUTIONS	EYE					
	<input checked="" type="checkbox"/> Safety glasses	<input checked="" type="checkbox"/> Face shield and goggles	HAND (GLOVE TYPE)		<input checked="" type="checkbox"/> Butyl rubber	<input type="checkbox"/> Polyvinyl alcohol
		<input checked="" type="checkbox"/> Goggles	<input type="checkbox"/> Polyvinyl chloride	<input checked="" type="checkbox"/> Neoprene	<input checked="" type="checkbox"/> Natural rubber	<input type="checkbox"/> Polyethylene
	RESPIRATOR TYPE - Use only NIOSH approved equipment					
	<input type="checkbox"/> Self-contained	<input type="checkbox"/> Supplied air	<input checked="" type="checkbox"/> Can or cartridge gas or vapor	<input checked="" type="checkbox"/> Filter - dust, fume, mist	<input checked="" type="checkbox"/> Other (specify): Always comply with 29 CFR 1910.134	
	OTHER PROTECTIVE EQUIPMENT					
<input checked="" type="checkbox"/> Rubber boots <input checked="" type="checkbox"/> Apron <input checked="" type="checkbox"/> Other (specify): Safety shower and eye wash						
PRECAUTIONARY LABELING						
<input checked="" type="checkbox"/> Wash thoroughly after handling	<input checked="" type="checkbox"/> Do not get in eyes, on skin or clothing	<input checked="" type="checkbox"/> Do not breathe dust, vapor, mist, gas	<input checked="" type="checkbox"/> Keep container closed	<input checked="" type="checkbox"/> Keep away from heat, sparks, and open flames	<input checked="" type="checkbox"/> Store in tightly closed containers	
<input type="checkbox"/> Do not store near combustibles	<input checked="" type="checkbox"/> Keep from contact with clothing and other combustible materials	<input checked="" type="checkbox"/> Empty container may contain hazardous residues	<input type="checkbox"/> Use explosion proof equipment	<input type="checkbox"/> Other (specify):		
Other handling and storage conditions						
DO NOT SMOKE WHEN HANDLING CHEMICALS.						
<p>THE ABOVE INFORMATION IS ACCURATE TO THE BEST OF OUR KNOWLEDGE. HOWEVER, SINCE DATA, SAFETY STANDARDS, AND GOVERNMENT REGULATIONS ARE SUBJECT TO CHANGE AND THE CONDITIONS OF HANDLING AND USE, OR MISUSE ARE BEYOND OUR CONTROL, WE MAKE NO WARRANTY, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIM ALL LIABILITY FOR RELIANCE THEREON. USER SHOULD SATISFY HIMSELF THAT HE HAS ALL CURRENT DATA RELEVANT TO HIS PARTICULAR USE.</p>						