

MATERIAL SAFETY DATA SHEET							ADDRESS: Reaction Engineering Inc. P.O. Box 1452 Dodge City, Ks. 67801-1452		
"ESSENTIALLY SIMILAR" TO OSHA FORM 20							DATE 12/01/06		
PRODUCT NAME RXN-3200 CHEMICAL NAME AND MOLECULAR FORMULA PROPRIETARY FORMULATION							EMERGENCY PHONE NUMBERS BUSINESS: (620) 225-2180 OTHER: (800) 255-3924		
SYNONYMS NONE							CAS NO. NOT APPLICABLE FOR BLENDS CHEMICAL FAMILY WATER TREATING		
MATERIALS OR COMPONENTS							% W/W	HAZARD DATA	
INGREDIENTS	1-HYDROXYETHYLIDENE-1, 1-DIPHOSPHONIC ACID							<15	NON ESTABLISHED CORROSIVE HAZARD
	SODIUM HYDROXIDE							<10	2mg/M ³ - OSHA PEL 2mg/M ³ - ACGIH TLV CORROSIVE HAZARD
SHIPPING INFORMATION		WATER TREATMENT COMPOUND, LIQUID NA-1760			CORROSIVE MATERIAL CORROSIVE LABEL REQUIRED				
PROPERTY	BOILING POINT/RANGE °C 212 °F		MELTING POINT °C NE		FREEZING POINT °C NE		MOLECULAR WEIGHT NE		
	SPECIFIC GRAVITY (H ₂ O=1) 1.12 @ 20/20		VAPOR PRESSURE (mm Hg) °C NE		°F NE		VAPOR DENSITY (AIR=1) NE		
	SOLUBILITY IN H ₂ O COMPLETE		% VOLATILES BY VOLUME >50		EVAPORATION RATE <input type="checkbox"/> ETHER=1		<1 <input checked="" type="checkbox"/> WATER=1 <input type="checkbox"/> BUTYLACETATE=1		
	APPEARANCE AND ODOR DARK CLEAR LIQUID		OTHER: NONE						
FLASH POINT	TEST METHOD °C °F NONE		FLAMMABLE LIMITS LOWER NA		% UPPER NA		AUTOIGNITION TEMP/FIRE POINT °C NA °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/ SAND	
SPECIAL FIRE FIGHTING PROCEDURES <input type="checkbox"/> DON'T ENTER BUILDING <input type="checkbox"/> ALLOW FIRE TO BURN <input type="checkbox"/> WATER MAY CAUSE FROTHING								<input checked="" type="checkbox"/> USE SELF CONTAINED BREATHING APPARATUS	
UNUSUAL FIRE AND EXPLOSION HAZARDS <input checked="" type="checkbox"/> DUST EXPLOSION HAZARD <input type="checkbox"/> SENSITIVE TO SHOCK		<input type="checkbox"/> CONTAMINATION		<input type="checkbox"/> TEMPERATURE		OTHER:		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		OTHER:					
HAZARDOUS DECOMPOSITION PRODUCTS - THERMAL AND OTHER (LIST) MAY EVOLVE CO ₂ , CO ₃ , AND PHOSPHINES; ALSO OXIDES OF NITROGEN									
CONDITION TO AVOID <input type="checkbox"/> HEAT <input type="checkbox"/> OPEN FLAMES <input type="checkbox"/> SPARKS <input type="checkbox"/> IGNITION SOURCES				OTHER:		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/Scoop UP AND REMOVE		<input type="checkbox"/> KEEP UPWIND		<input checked="" type="checkbox"/> PREVENT SPILL	
<input checked="" type="checkbox"/> DISPOSE IMMEDIATELY		OTHER:							
WASTE DISPOSAL METHOD-		DISPOSE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATION							
CONTINUED ON NEXT PAGE									

NA - NOT APPLICABLE

NE - NOT ESTABLISHED

ORAL (ACUTE): IRRITANT, POSSIBLY CORROSIVE

DERMAL (ACUTE): IRRITANT

EYE: POSSIBLY CORROSIVE

INHALATION: IRRITANT

CHRONIC, SUBCHRONIC, ETC.

THIS PRODUCT IS NOT CONSIDERED TO BE A CARCINOGEN BY NTP, IARC, OR OSHA.

TOXICITY	PERMISSIBLE EXPOSURE LIMIT (SPECIFY IF TLV/TWA OR CEILING[C])					
	ACGIH 19_ NA	OSHA 19_ NA	OTHER: NONE			
HEALTH EFFECTS	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		
HAZARDED EXPOSURE	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			
INFRAMASTIC	SENSITIZATION	<input type="checkbox"/> SKIN	<input type="checkbox"/> RESPIRATORY	<input type="checkbox"/> ALLERGEN	INHALATION EFFECTS	
					<input type="checkbox"/> NARCOTIC	<input type="checkbox"/> CYANOSIS
LUNG EFFECTS (SPECIFY): NE						
OTHER (SPECIFY): NE	<input type="checkbox"/> REPEATED CONTACT SKIN DEFATTER					
SPECIALEQUIPMENT	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	OTHER:
	DERMAL	<input checked="" type="checkbox"/> FLUSH WITH SOAP AND WATER	<input checked="" type="checkbox"/> GET MEDICAL ATTENTION	<input checked="" type="checkbox"/> CONTAMINATED CLOTHING-LAUNDER	<input checked="" type="checkbox"/> CONTAMINATED SHOES-DESTROY	OTHER:
EYE CONTACT	<input checked="" type="checkbox"/> FLUSH WITH PLENTY OF WATER FOR 15 MINUTES	<input checked="" type="checkbox"/> GET MEDICAL ATTENTION	OTHER:			
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	OTHER:	
VENTILATIONS REQUIREMENTS - ALWAYS MAINTAIN EXPOSURE BELOW PERMISSIBLE EXPOSURE LIMITS						
SPECIALEQUIPMENT	<input type="checkbox"/> CONSULT AND INDUSTRIAL HYGIENIST	<input type="checkbox"/> LOCAL EXHAUST	<input checked="" type="checkbox"/> USE WITH ADEQUATE VENTILATION	<input checked="" type="checkbox"/> CHECK FOR CONTAMINANT AND OXYGEN DEFICIENCY		
OTHER:						
EYE	<input checked="" type="checkbox"/> FACE SHIELD AND GOGGLES	HAND (GLOVE TYPE)		<input checked="" type="checkbox"/> BUTYL RUBBER	<input type="checkbox"/> POLYVINYL ALCOHOL	OTHER (SPECIFY):
	<input checked="" type="checkbox"/> SAFETY GLASSES	<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						
SPECIALEQUIPMENT	<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	OTHER:	
OTHER PROTECTIVE EQUIPMENT	<input checked="" type="checkbox"/> RUBBER BOOTS	<input checked="" type="checkbox"/> APRON	OTHER: SAFETY SHOWER AND EYE WASH			
POTENTIAL HAZARDS	PRECAUTIONARY LABELING					
	<input checked="" type="checkbox"/> WASH AFTER HANDLING	<input checked="" type="checkbox"/> DON'T GET IN EYES, SKIN, CLOTHING	<input checked="" type="checkbox"/> DO NOT BREATHE, GAS DUST, VAPOR	<input checked="" type="checkbox"/> KEEP CONTAINER CLOSED	<input checked="" type="checkbox"/> KEEP AWAY FROM HEAT, SPARKS	<input checked="" type="checkbox"/> STORE IN CLOSED CONTAINER
	<input type="checkbox"/> DON'T STORE NEAR COMBUSTIBLES	<input checked="" type="checkbox"/> KEEP FROM CONTACT WITH CLOTHING	<input type="checkbox"/> EMPTY CONTAINER MAY CONTAIN HAZARDOUS	<input type="checkbox"/> USE EXPLOSION PROOF EQUIPMENT	OTHER:	
OTHER HANDLING AND STORAGE CONDITIONS:						
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