

IDENTIFICATION	<b>MATERIAL SAFETY DATA SHEET</b> "ESSENTIALLY SIMILAIR" TO OSHA FORM 20				ADDRESS: Reaction Engineering Inc. P.O. Box 1452 Dodge City, Ks. 67801-1452	
	PRODUCT NAME RXN-100		DATE 01/01/07		EMERGENCY PHONE NUMBERS	
	CHEMICAL NAME AND MOLECULAR FORMULA Proprietary Formulation				BUSINESS: (620) 225-2180 OTHER: (800) 255-3924	
	SYNONYMS None				CAS NO. See Below CHEMICAL FAMILY Water Treating Chemicals	
INGREDIENTS	MATERIALS OR COMPONENTS			% W/W	HAZARD DATA	
	SODIUM META SILICATE			<10	2 ppm mg/M3 TWA (MFG.)	
	CAS No. 6834-92-0					
	SODIUM TETRABORATE			<10	5 mg/M3 TWA (ACGIH)	
	CAS No. 1303-96-4					
	SODIUM NITRITE			<20	Not Listed	
	CAS No. 7632-00-0					
	None of these ingredients are listed under					
	SARA Title III, Section 313.					
SHIPPING INFORMATION		OXIDIZING SUBSTANCES LIQUID, n.o.s., 5.1, PG-III, UN-3139, Oxidizer Label/ Placard Required. RQ = 127 gals. (Sodium Nitrite).				
PHYSICALS	BOILING POINT/RANGE °C 212 °F		MELTING POINT °C NE °F		FREEZING POINT °C <32 °F	
	SPECIFIC GRAVITY (H2O=1) 1.20 @ 20/20 °C		VAPOR PRESSURE (mm Hg) @ °C NE °F		MOLECULAR WEIGHT NE	
	SOLUBILITY IN H2O Complete		% VOLATILES BY VOLUME >50		VAPOR DENSITY (AIR=1) NE	
	APPEARANCE AND ODOR Deep blue colored liquid		OTHER: pH > 12.0		EVAPORATION RATE <1 <input type="checkbox"/> ETHER=1 <input checked="" type="checkbox"/> WATER=1 <input type="checkbox"/> BUTYLACETATE=1	
	FLASH POINT °C °F		TEST METHOD None		FLAMMABLE LIMITS LOWER NA % UPPER NA	
EXPLORATION AND DATA	EXTINGUISHING MEDIA <input checked="" type="checkbox"/> WATER-SPRAY <input checked="" type="checkbox"/> WATER-FOG <input type="checkbox"/> WATER-STREAM <input checked="" type="checkbox"/> CO2 <input checked="" type="checkbox"/> DRY-CHEMICAL <input type="checkbox"/> ALCOHOL-FOAM <input type="checkbox"/> FOAM <input 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 type="checkbox"/> DON'T USE WATER <input checked="" type="checkbox"/> USE SELF CONTAINED BREATHING APPARATUS		AUTOIGNITION TEMP/FIRE POINT °C NA °F	
	UNUSUAL FIRE AND EXPLOSION HAZARDS <input checked="" type="checkbox"/> DUST EXPLOSION HAZARD <input type="checkbox"/> SENSITIVE TO SHOCK <input checked="" type="checkbox"/> CONTAMINATION <input type="checkbox"/> TEMPERATURE		OTHER: Nitrite is an oxidizer.			
	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 type="checkbox"/> CONTAMINATION			
	INCOMPATIBILITY - AVOID CONTACT WITH <input type="checkbox"/> STRONG ACIDS <input type="checkbox"/> STRONG ALKALIS <input type="checkbox"/> STRONG OXIDIZERS		OTHER: Reducing Agents.			
	HAZARDOUS DECOMPOSITION PRODUCTS - THERMAL AND OTHER (LIST) Nitrogen oxides (acidic) and oxygen (flammable)					
REACTIVITY	CONDITION TO AVOID <input type="checkbox"/> HEAT <input type="checkbox"/> OPEN FLAMES <input type="checkbox"/> SPARKS <input type="checkbox"/> IGNITION SOURCES		OTHER: Sulfamic acid			
	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 checked="" type="checkbox"/> KEEP UPWIND <input checked="" type="checkbox"/> PREVENT SPILL					
	<input checked="" type="checkbox"/> DISPOSE IMMEDIATELY OTHER: See Below.					
SPILLAGE OR	WASTE DISPOSAL METHOD: In accordance with Federal, State, and Local regulations.		Consult federal, state, or local authorities.			
			CONTINUED ON NEXT PAGE			

NA - NOT APPLICABLE NE - NOT ESTABLISHED



TOXICITY	ORAL (ACUTE): Strong irritant - may cause burns.		DERMAL (ACUTE): Strong irritant - may cause burns.		EYE: Strong irritant - may cause burns.		INHALATION: Irritant.	
	CHRONIC, SUBCHRONIC, ETC. SODIUM NITRITE INDUCES THE FORMATION OF METHEMOGLOBIN. THE SYMPTOMS INCLUDE CYANOSIS, EUPHORIA, HEADACHE, FLUSHED FACE, LIGHT-HEADEDNESS, ATAXIA, WEAKNESS, RAPID HEARTBEAT, LABORED BREATHING, NAUSEA, VOMITING, MENTAL CONFUSION, BLURRING OF VISION, REDUCED BLOOD PRESSURE, AND SYNCOPE.							
HEALTH EFFECTS OF EXPOSURE	PERMISSIBLE EXPOSURE LIMIT (SPECIFY IF TLVA/TWA OR CEILING[C])							
	ACGIH 19__ NA		OSHA 19__ NA		OTHER: NA			
	IRRITATION		<input checked="" type="checkbox"/> SKIN	<input checked="" type="checkbox"/> SEVERE	<input type="checkbox"/> MODERATE			
			<input checked="" type="checkbox"/> EYE	<input checked="" type="checkbox"/> SEVERE	<input type="checkbox"/> MODERATE		<input type="checkbox"/> MILD (TRANSIENT)	
	CORROSIVITY		<input type="checkbox"/> SKIN	<input type="checkbox"/> 4 HRS. (DOT)	<input type="checkbox"/> 24 HRS. (CPSC)			
			<input type="checkbox"/> EYE	<input type="checkbox"/> MAY CAUSE BLINDNESS				
	SENSITIZATION				INHALATION EFFECTS			
	<input type="checkbox"/> SKIN <input type="checkbox"/> RESPIRATORY <input checked="" type="checkbox"/> ALLERGEN				<input type="checkbox"/> NARCOTIC <input type="checkbox"/> CYANOSIS <input type="checkbox"/> ASPHYXIAN			
	LUNG EFFECTS (SPECIFY): NOT KNOWN							
	OTHER (SPECIFY): <input checked="" type="checkbox"/> REPEATED CONTACT SKIN DEFATTER							
FIRST AID	INGESTION							
	<input checked="" type="checkbox"/> INDUCE VOMITING		<input type="checkbox"/> DO NOT INDUCE VOMITING		<input checked="" type="checkbox"/> GIVE PLENTY OF WATER		<input checked="" type="checkbox"/> GET MEDICAL ATTENTION	
	<input checked="" type="checkbox"/> FLUSH WITH SOAP AND WATER		<input checked="" type="checkbox"/> GET MEDICAL ATTENTION		<input checked="" type="checkbox"/> CONTAMINATED CLOTHING-LAUNDER		<input type="checkbox"/> CONTAMINATED SHOES-DESTROY	
	EYE CONTACT							
	<input checked="" type="checkbox"/> FLUSH WITH PLENTY OF WATER FOR 15 MINUTES		<input checked="" type="checkbox"/> GET MEDICAL ATTENTION		OTHER:			
SPECIAL PROTECTION	INHALATION							
	<input checked="" type="checkbox"/> REMOVE TO FRESH AIR		<input checked="" type="checkbox"/> IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION		<input type="checkbox"/> GIVE OXYGEN		<input type="checkbox"/> GET MEDICAL ATTENTION	
	OTHER:							
	VENTILATIONS REQUIREMENTS - ALWAYS MAINTAIN EXPOSURE BELOW PERMISSIBLE EXPOSURE LIMITS							
	<input type="checkbox"/> CONSULT AND INDUSTRIAL HYGIENIST		<input checked="" type="checkbox"/> LOCAL EXHAUST		<input checked="" type="checkbox"/> USE WITH ADEQUATE VENTILATION		<input type="checkbox"/> CHECK FOR CONTAMINANT AND OXYGEN DEFICIENCY	
	OTHER:							
	EYE		<input type="checkbox"/> FACE SHIELD AND GOGGLES		HAND (GLOVE TYPE)		<input checked="" type="checkbox"/> BUTYL RUBBER	
	<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							
<input type="checkbox"/> SELF-CONTAINED		<input type="checkbox"/> SUPPLIED AIR		<input type="checkbox"/> CAN OR CARTRIDGE GAS OR VAPOR		<input type="checkbox"/> FILTER-DUST, FUME, MIST		
OTHER: VENTILATION								
SPECIATION	OTHER PROTECTIVE EQUIPMENT							
	<input checked="" type="checkbox"/> RUBBER BOOTS		<input checked="" type="checkbox"/> APRON		OTHER: SAFETY SHOWER AND EYE WASH STATION.			
	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 type="checkbox"/> DON'T STORE NEAR COMBUSTIBLES		<input 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:								
DO NOT SMOKE WHEN HANDLING CHEMICALS. KEEP OUT OF REACH OF CHILDREN.								
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 EXPRESSED 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.								