



SAFETY DATA SHEET

Section 1		CHEMICAL PRODUCT & COMPANY IDENTIFICATION	
Product Name:	LRS	Product Use:	Alkaline cleaner
Supplied by:	Latem Industries Ltd.,	Address:	90 Struck Court., Cambridge, Ont. L1R 8L2
Emergency Phone #: Canutec: 613-996-6666 (24 hr number) Date Prepared: October 19 th , 2011 Date Revised: Nov. 8. 2018			

Section 2		HAZARD IDENTIFICATION	
	Corrosive	Serious eye damage Corrosive to metals Skin corrosion	
	Signal word	Danger	
	Hazard statements	May be corrosive to metals Causes serious to severe eye damage Causes severe skin burns	
	Precautionary statements	Read label before use, Avoid spills / splashing liquid Do not breathe mist / vapours Wear protective clothing	
	Irritant	Eye irritation	
	Signal word	Warning	
	Hazard statements	Causes serious eye irritation	
	Precautionary statements	Read label before use Wear eye protection	
Route of Entry: Skin Contact <input checked="" type="checkbox"/> Skin Absorption <input type="checkbox"/> Eye Contact <input checked="" type="checkbox"/> Inhalation <input checked="" type="checkbox"/> Ingestion <input checked="" type="checkbox"/>			
Skin Contact	Corrosive and irritating to skin. Effects may include blistering, mild to severe irritation with the potential for permanent scarring depending on the concentration of the solution and the duration of contact.		
Eye Contact	Corrosive and irritating to eyes. May cause severe eye burns, ulceration, severe scarring, clouding of vision and permanent injury, including blindness, depending on the concentration of the solutions and duration of contact.		
Inhalation	Inhalation of mists and vapours may cause corrosion and irritation to respiratory tract. In severe cases, overexposure to large amounts may cause pulmonary edema (shortness of breath, cough, difficulty breathing). Note: symptoms may be delayed for up to 24 or 48 hours post exposure.		
Ingestion	Corrosive and irritating to digestive tract. May cause burns to the lips, tongue, throat, esophagus and stomach; abdominal pain; nausea; vomiting and diarrhea.		
Chronic Exposure	Repeated over-exposure to skin may cause drying, cracking and dermatitis.		

Section 3		COMPOSITION / INFORMATION ON INGREDIENTS		
Ingredient	CAS#	LD50	LC50	Concentration
Triethanolamine	102-71-6	9000 mg/kg (oral-rat) 5200 mg/kg (oral-mouse)	Not available	10 – 30%
Sodium hydroxide	1310-73-2	400 mg/kg (rabbit)	Not available	15 – 40%

Section 4		FIRST AID MEASURES
Eye Contact:	Immediately flush eyes with gently flowing water for at least 30 minutes, by the clock, lifting lower and upper eyelids to expose all eye surfaces. Take care not to rinse contaminated water into non-affected eye and face.. Neutral saline solution may be used as soon as it is available. DO NOT INTERRUPT FLUSHING. If necessary, continue flushing during transport to emergency care facility. Quickly transport victim to an emergency care facility.	
Skin Contact:	Wash exposed skin with soap and water for at least 30 minutes, by the clock, while removing contaminated clothing and shoes. Seek medical attention if burns or if skin irritation persists. Launder clothing prior to reuse.	
Ingestion:	DO NOT INDUCE VOMITING. Rinse mouth with water. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Have victim rinse mouth with water again. Quickly transport victim to an emergency care facility. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.	
Inhalation:	Immediately remove to fresh air. Observe. Obtain medical attention if irritation, cough, shortness of breath or difficulty breathing occurs. If breathing is difficult, oxygen may be beneficial if administered by a person trained in its use. Symptoms of pulmonary edema may be delayed up to 48 hours after exposure. Transport immediately to emergency facility if symptoms of pulmonary edema occur (difficult, rapid breathing, cough).	

Section 5		FIRE AND EXPLOSION DATA	
Conditions of Flammability:	Not flammable		
Hazardous Combustion Products	When moist, sodium hydroxide can react with metals, such as aluminum, tin and zinc, to form flammable and explosive hydrogen gas.		
Means of Extinction:	Use fire fighting equipment suitable for surrounding fire		
Special Fire Fighting Procedures:	Evacuate area and fight fire from a safe distance or a protected location. Approach fire from upwind to avoid toxic decomposition products. Water must be used with extreme caution to extinguish a fire in an area where sodium hydroxide is stored and must not come into contact with the sodium hydroxide. Do not apply water directly to sodium hydroxide since it can generate significant heat and cause spattering. Sodium hydroxide solutions are corrosive and at high temperatures, decomposition occurs giving off strong, corrosive fumes of sodium oxide. Do not enter without wearing specialized equipment suitable for the situation. Firefighters should wear chemical protective clothing (e.g. chemical splash suit) and positive pressure self-contained breathing apparatus (NIOSH approved or equivalent) may be necessary.		
Flash Point:	n/a	Method of Determination:	n/a
Upper Flammable Limit (%)	n/a	Lower Flammable Limit (%)	n/a
Explosion data - sensitivity to mechanical impact: n/a		- sensitivity to static discharges: n/a	

Section 6		ACCIDENTAL RELEASE MEASURES
Spill or Leak Procedures:	Restrict access to area until completion of clean-up. Wear adequate personal protective equipment. Material can create slippery conditions. Remove chemicals which can react with the spilled material. Avoid inhaling vapour. Do not touch spilled material. Stop or reduce leak if safe to do so. Prevent material from entering sewers or confined spaces. Solutions should be contained by diking with inert material, such as sand or earth. Solutions can be recovered or carefully diluted with water and cautiously neutralized	

Section 7		HANDLING & STORAGE
Handling Procedures:	Avoid contact with skin and eyes. Avoid splashing. Avoid breathing mist or vapours. Add this product to surface of solution slowly to avoid spattering. Do not add large amounts of product or solution at any one time. Do not add to hot water warmer than 40C (110F). Never add liquid to product. Keep away from incompatible substances. Transfer using corrosion-resistant tools or equipment.	
Storage Requirements:	Keep container closed when not in use. Store in a cool, well-ventilated area away from incompatible substances.	

Section 8	PERSONAL PROTECTION & EXPOSURE CONTROLS
Exposure Parameters	<p>As Triethanolamine ACGIH TLV-TWA 5 mg/m³</p> <p>As Sodium hydroxide ACGIH – Ceiling 2 mg/m³</p> <p> OSHA PEL 2 mg/m³</p> <p>American Industrial Hygiene Association (IAHA) Emergency Response Planning Guidelines (ERPG) for sodium hydroxide: (See section 16 for ERPG information)</p> <p>ERPG-1: 0.5 mg/m³ ERPG-2: 5 mg/ m³ ERPG-3: 50 mg/ m³</p>
Respiratory Protection	<p>NIOSH Pocket Guide to Chemical Hazards recommendations for Sodium Hydroxide:</p> <ul style="list-style-type: none"> Any supplied-air respirator operated in a continuous-flow mode. (APF = 25) Any air-purifying, full-facepiece respirator with an N100, R100, or P100 filter (APF = 50) Any powered air-purifying respirator with a high-efficiency particulate filter (APF = 25) Any self-contained breathing apparatus with a full facepiece. (APF = 50) Any supplied-air respirator with a full facepiece (APF = 50) <p>Emergency or planned entry into unknown concentrations or IDLH conditions: (APF = 10, 000)</p> <ul style="list-style-type: none"> Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode. (APF = 10, 000) Any supplied-air respirator that has a full-facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode. <p>Escape: (APF = 50)</p> <ul style="list-style-type: none"> Any air-purifying, full-facepiece respirator with an N100, R100, or P100 filter. for information on selection of N, R, or P filters. Any appropriate escape-type, self-contained breathing apparatus.
Eye Protection	Chemical safety goggles or full face shield required whenever potential for splashing or mists present
Skin Protection	Impervious gloves and apron
Engineering & other controls:	<p>Good general ventilation should be provided. Use local corrosion-resistant exhaust ventilation to maintain exposure below exposure limits. Avoid generating any mists. Avoid splashing.</p> <p>Do not smoke, eat or drink in work areas. Wash hands thoroughly after handling material.</p> <p>Maintain good housekeeping.</p>

Section 9	PHYSICAL & CHEMICAL DATA		
Physical State:	Liquid	Appearance:	Amber
Odour:	n/a	Odour Threshold:	Not available
Specific Gravity:	Not available	pH:	>12.5
Vapour Pressure:	Not available	Vapour Density:	Not available
Freezing Point:	Not available	Boiling Point:	Not available
Coefficient of water/oil distribution: completely soluble in water			

Section 10	STABILITY & REACTIVITY DATA		
Stability:	Normally stable		
Incompatible substances:	Acids, nitrous acid and other nitrosating agents	Conditions to Avoid:	Freezing
Hazardous Decomposition Products:	Carbon dioxide, carbon monoxide, hydrogen gas (reaction with metals) nitrogen oxides	Hazardous Polymerization	n/a

Section 11	TOXICOLOGICAL INFORMATION		
Sensitization	Inconclusive reports of skin sensitization to triethanolamine	Carcinogenicity:	None known
Teratogenicity	None known	Mutagenicity	None known
Synergistic Products	None known		

Section 12	ECOLOGICAL INFORMATION
Harmful to aquatic life.	

Section 13	DISPOSAL CONSIDERATIONS
Waste Disposal:	Store material for disposal as indicated in Storage Requirements. Review federal, provincial and local government requirements prior to disposal.

Section 14	TRANSPORTATION INFORMATION
TDG Class:	Sodium hydroxide solution: UN 1824, Class 8, Packing group II

Section 15	REGULATORY INFORMATION
WHMIS classification:	E - Corrosive material

Section 16	OTHER
Sources: Manufacturer's MSDS & CCOHS Cheminfo Date: November 8th, 2018	
<p>The Emergency Response Planning Guideline (ERPG) values are established by the American Industrial Hygiene Association and intended to provide estimates of concentration ranges where one reasonably might anticipate observing adverse effects as described in the definitions for ERPG-1, ERPG-2, and ERPG-3 as a consequence of exposure to the specific substance.</p> <ul style="list-style-type: none"> - The ERPG-1 is the maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to 1 hr without experiencing other than mild transient adverse health effects or perceiving a clearly defined, objectionable odor. - The ERPG-2 is the maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to 1 hr without experiencing or developing irreversible or other serious health effects or symptoms which could impair an individual's ability to take protective action. - The ERPG-3 is the maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to 1 hour without experiencing or developing life-threatening health effects. 	

All information appearing herein is based upon data obtained from the chemical manufacturer and/or recognized technical sources. The information set forth within this MSDS is believed to be accurate and reliable at the time this MSDS was prepared. Users of this product are responsible to verify this data under their own operating conditions and determine whether the product is suitable for use and assume all risks of use, handling, storage and disposal of this product. The MSDS is intended to be used by persons having the technical skills and understanding necessary to utilize the information contained herein and at their own discretion and risk. Since conditions of use are outside our control, we make no warranties, expressed or implied, and assume no liability in connection with the use of this information.