



Safety Data Sheet

Section 1. Identification		
Product Identifier	Sodium Hydroxide (Caustic Soda) Liquid	Version: 6 Effective Date: 20 February, 2016
Other Means of Identification	Caustic soda	
Initial Supplier Identifier	Chemfax Products Ltd. 11444 – 42 Street SE Calgary, AB T2C 5C4 Tel: 403-287-2055	
Recommended Use and Restrictions On Use	Metal finishing, cleaning agent, chemical processing. No restrictions.	
Product Family	Inorganic base	
24 Hour Emergency	Canutec (613) 996-6666	

Section 2. Hazard Identification	
Hazard Classification	 
Physical Hazards	Corrosive to Metals – Category 1
Health Hazards	Skin Corrosion/Irritation – Category 1 Eye Damage/Irritation – Category 1 Specific Target Organ Toxicity (Single Exposure) – Category 3
Environmental Hazards	Hazardous To The Aquatic Environment – Short Term (Acute) Hazard – Category 3
Signal Word	Danger
Hazard Statement	May be corrosive to metals. Causes severe skin burns and serious eye damage. May cause respiratory irritation or may cause drowsiness or dizziness. Harmful to aquatic life.
Precautionary Prevention Statement	Keep only in original packaging. Do not breathe dusts or mists. Wash hands thoroughly after handling. Wear protective gloves, clothing, eye and face protection. Use only outdoors or in a well-ventilated area. Avoid release to the environment.
Precautionary Response Statement	Absorb spillage to prevent material damage. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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	<p>IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower if on clothing. Wash contaminated clothing before reuse.</p> <p>IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a doctor.</p> <p>Specific Treatment: do not induce vomiting unless directed by medical personnel.</p> <p>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor.</p>
Precautionary Storage Statement	Store locked up. Store in a well-ventilated place. Keep container tightly closed.
Precautionary Disposal Statement	Dispose of contents/container in accordance with local regulations.
Other Hazards	None

Section 3. Composition / Information on Ingredients

Chemical Name	Common Name or Synonyms	CAS NO. and Other Unique Identifier	% by weight
Sodium hydroxide	Caustic soda	1310-73-2	30-60

Section 4. First-Aid Measures

Eye Contact	Flush eyes with water for 15 minutes. Seek medical attention.
Skin Contact	Flush area with water. If irritation persists seek medical attention. Launder clothing before reuse.
Inhalation	Remove victim to fresh air. If there is difficulty breathing, seek immediate medical attention.
Ingestion	Remove victim to fresh air. If there is difficulty breathing, seek immediate medical attention.
Most Important Symptoms and Effects Both Acute and Delayed	Irritation, nausea, headache, shortness of breath, lachrymator.
Immediate Medical Attention and Special Treatment	Treatment based on sound judgement of physician and individual reactions of the patient.

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Section 5. Fire-Fighting Measures	
Suitable and Unsuitable Extinguishing Media	Use extinguishing media suitable for surrounding fire. NOTE: Do not direct a solid stream of water or foam into burning molten material, this may cause spattering and spread the fire. Contact with water or moisture may generate enough heat to ignite combustibles. Reacts with metals to form combustible hydrogen gas.
Hazardous Combustion Products	Oxides of sodium.
Specific Hazards Arising From the Product	Combustion products may include oxides of carbon and other toxic vapours. Thermal decomposition can lead to release of irritating gases and vapours. Corrosive to metals with liberation of hydrogen gas.
Special Protective Equipment and Precautions For Fire-Fighters	Fire-fighters should wear self contained breathing apparatus and full protective clothing. Use water spray to cool containers and structures exposed to fire.

Section 6. Accidental Release Measures	
Personal Precautions, Protective Equipment and Emergency Procedures	Gloves, coveralls, chemical resistant footwear, safety glasses. Keep unprotected persons away. Ensure adequate ventilation. Contain spilled material by diking. Transfer to a disposal or recovery container.
Environmental Precautions	Do not allow spilt material to enter sewers and surface watercourses.
Methods and Materials For Containment and Clean-Up	Pump or mop up, place in an appropriate container for disposal. Isolate spill, then dyke the area to contain the spill. Dilute the spill with large amounts of water and neutralise with a weak acid solution. Collect liquid for proper disposal. Flush area with water to remove residues.

Section 7. Handling and Storage	
Precautions For Safe Handling	Handle with care – Corrosive material. Avoid contact with eyes, skin and clothing. Empty containers may contain hazardous residues.
Conditions For Safe Storage	Store in a cool dry place. Keep containers closed when not in use. Protect containers from physical damage. Store away from incompatible materials.

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Section 8. Exposure Controls / Personal Protection				
Control Parameters	TWA: 8 Hr	STEL: 15 min	Ceiling	IDLH *
Sodium hydroxide	2 mg/m ³ (ACGIH)			10 mg/m ³
	* Immediately Dangerous to Life and Health			
Exposure Controls	Local exhaust ventilation			
Appropriate Engineering Controls	Ensure safety shower and eye wash station are available.			
Individual Protective Measures	Should be worn if exposure limits are exceeded:			
Eye / Face Protection	Safety glasses			
Skin Protection	Chemical resistant coveralls and gloves			
Respiratory Protection	Air purifying respirator fitted with HEPA filters			

Section 9. Physical and Chemical Properties	
Appearance	Clear colourless liquid
Odour	No odour
Odour Threshold	No data.
pH	14
Flash Point	Not applicable
Boiling Point and Boiling Range	115 – 140 °C
Melting Point and Freezing Point	1 - 12 °C
Evaporation Rate	Not applicable
Flammability (solid, gas)	Not applicable
Upper and Lower Flammability or Explosive Limits	No data
Vapour Pressure	Not applicable
Vapour Density	Not applicable
Relative Density	1.33 – 1.53
Solubility	Soluble
Partition co-efficient, n-Octanol/Water	No data
Auto-ignition Temperature	Not applicable
Decomposition Temperature	No data
Viscosity	No data

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Section 10. Stability and Reactivity	
Reactivity	Reacts violently with acids.
Chemical Stability	Stable.
Possibility of Hazardous Reactions	Will not occur
Conditions to Avoid	Excessive heat and moisture.
Incompatible Materials	Common metals and their alloys. Acids. Acid anhydrides. Oxidisable materials. Water can cause violent and explosive reactions.
Hazardous Decomposition Products	Not expected to decompose under normal conditions of use.

Section 11. Toxicological Information			
Component Toxicity	LD50 Oral	LD50 Dermal	LC50 Inhalation
Potassium hydroxide	500 mg/kg (Rabbit)		
Likely Routes of Exposure			
Skin:	Can cause severe chemical burns with blistering.		
Eyes:	Can cause redness, tearing, pain. May induce ulceration of the corneal epithelium, severe eye damage causing blindness.		
Inhalation:	Causes severe respiratory irritation. High concentrations may cause lung damage.		
Ingestion:	May cause burns of the mouth, throat and stomach. May cause pain, nausea, vomiting and diarrhoea. Severe scarring of tissue and death may result.		
Acute Toxicity Estimates (ATE)	Not classified		
STOT (Specific Target Organ Toxicity) – Single Exposure	Not classified		
Aspiration Toxicity	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.		
STOT (Specific Target Organ Toxicity) – Repeated Exposure	Not classified		
Skin Corrosion / Irritation	Causes severe burns		
Serious Eye Damage / Irritation	Corrosive		
Respiratory or Skin Sensitization	Does not cause skin sensitisation.		
Carcinogenicity	Not listed.		



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Reproductive Toxicity	
- Sexual Function and Fertility	Not classified
- Development of Offspring	Not classified
- Effects on or via Lactation	Not classified
Germ Cell Mutagenicity	Not classified
Interactive Effects	None known
Other Information	None available

Section 12. Ecological Information	
Ecotoxicity	LC50: 1149 mg/l (Rainbow trout) LC50: 152 mg/l (Chinook salmon)
Persistence and Degradability	Will not persist
Bioaccumulative Potential	No data
Biodegradability	No data
Mobility in Soil	Not available
Other Adverse Effects	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Section 13. Disposal Information	
Disposal Information	Dispose of contents / container in accordance with local regulations.

Section 14. Transport Information	
UN Number	1824
UN Proper Shipping Name	Sodium hydroxide solution
Transport Hazard Class(es)	8
Packaging Group	II
Environmental Hazards	Not applicable
Bulk Transport	Not applicable
Special Precaution	Not applicable
DOT Erg#	154

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Section 15. Regulatory Information	
Canada – DSL Inventory	All components of this product are either on the Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL) or exempt
TSCA	All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt
Additional Information	None

Section 16. Other Information	
NFPA Rating	Health-3/ Flammability-0/Reactivity-1/Special Hazard-Not applicable
HMIS Rating	Health-3/Flammability-0/Reactivity-1/Personal Protection-See Section 8.
Prepared by:	Chemfax Products Ltd., Technical Department
Date Prepared:	7 July, 2011
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