


# Material Safety Data Sheet

Section 1. Chemical Product and Company Identification	
<b>Product Name:</b>	<b>Sodium Hydroxide / Caustic Soda Beads</b> <b>Version: 5</b> <b>Effective Date: June 24, 2014</b>
<b>Supplier:</b>	Chemfax Products Ltd. 11444 – 42 Street SE Calgary, AB T2C 5C4 Tel: 403-287-2055
<b>Material Uses</b>	Metal finishing, cleaning agent, chemical processing
<b>24 Hour Emergency</b>	Canutec (613) 996-6666
<b>WHMIS</b>	
	
This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR	
<b>HMIS Ratings</b> for this product are: <b>Health 3 , Flammability 0 , Reactivity 0</b>	

Section 2. Composition and Information on Ingredients		
Name	CAS#	% by weight
Sodium hydroxide	1310-73-2	96 - 100
See Section 8 for information on permissible exposure limits and threshold limit values		

Section 3. Hazards Identification	
<b>Physical State and Appearance</b>	White, granular solid
<b>Hazard Summary</b>	Corrosive
<b>Routes of Exposure</b>	Skin, eyes, inhalation. ingestion
<b>Potential Acute Health Effects</b>	<b>Skin:</b> Corrosive. Causes severe burns. Will cause burns with deep ulcerations, leading to scarring. Prolonged contact can destroy tissue. May cause dermatitis.

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	<p><b>Eyes:</b> Corrosive. Causes severe eye burns. Small quantities can result in permanent damage and /or loss of vision.</p> <p><b>Inhalation:</b> Corrosive. Inhalation of dusts or mists can cause damage to the upper respiratory tract and to the lung tissue depending on the degree of exposure. Effects can range from mild irritation to severe pneumonitis to complete destruction of the lung tissue.</p> <p><b>Ingestion:</b> Corrosive. Ingestion can cause damage/burns to the mucous membranes, mouth and digestive tract. Ingestion of the product may result in death.</p>
<b>Medical Conditions</b>	No data
<b>Aggravated by Exposure</b>	
See Toxicological Information – Section 11	
<b>Additional Hazard</b>	None
<b>Identification Remarks</b>	

<b>Section 4. First Aid Measures</b>	
<b>Eye Contact</b>	Flush eyes with water for 15 minutes. Seek medical attention.
<b>Skin Contact</b>	Flush area with water. If irritation persists seek medical attention. Launder clothing before reuse.
<b>Inhalation</b>	Remove victim to fresh air. If there is difficulty breathing, seek immediate medical attention.
<b>Ingestion</b>	Give two glasses of water. Do not induce vomiting. Lay victim on left side to prevent aspiration of any vomit. Seek immediate medical attention.
<b>Notes to Physician</b>	Treatment based on sound judgement of physician and individual reactions of the patient
<b>Additional First Aid Remarks</b>	None

<b>Section 5. Fire Fighting Measures</b>	
<b>Flammability of the Product</b>	Non flammable
<b>Flash Point</b>	Not applicable
<b>Explosive Limits</b>	Not applicable
<b>Auto Ignition Temperature</b>	Not applicable
<b>Static Discharge</b>	No
<b>Suitable Extinguishing Media</b>	Use extinguishing media suitable for surrounding fire
<b>Hazardous Combustion Products</b>	No data

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<b>Precautions for Fire Fighting</b>	Fire fighters should wear self contained breathing apparatus and full protective clothing. Use water spray to cool containers and structures exposed to fire.
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<b>Section 6. Accidental Release Measures</b>	
<b>Personal Precautions</b>	Gloves, coveralls, chemical resistant footwear, safety glasses
<b>Environmental Precautions</b>	Do not allow the product to enter surface drains and water courses
<b>Methods for Clean Up</b>	Scoop up or vacuum up, place in an appropriate container for disposal. Avoid raising dust. Isolate spill. If the material has been diluted with water or any other liquid, 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.

<b>Section 7. Handling and Storage</b>	
<b>Handling</b>	Handle with care, very corrosive material. Avoid raising dust when handling this material. Always add Caustic soda / sodium hydroxide to lukewarm water with constant agitation. Use of hot water or addition without agitation may cause localised heating which can result in boiling of the liquid and eruption of material from the mixing vessel.
<b>Storage</b>	Store in a cool dry place, keep container closed when not in use

<b>Section 8. Exposure Controls and Personal Protection</b>				
<b>Exposure Guidelines</b>	<b>TWA: 8 Hr</b>	<b>STEL: 15 min</b>	<b>Ceiling</b>	<b>IDLH*</b>
Sodium hydroxide	2 mg/m <sup>3</sup> Ceiling (ACGIH)			10 mg/m <sup>3</sup>
*Immediately dangerous to life or health				
<b>Exposure Controls</b>	Local exhaust ventilation			
<b>Personal Protection</b>				
<b>Respiratory</b>	If exposure limits are exceeded an air purifying respirator fitted with the appropriate cartridges must be worn			
<b>Skin</b>	Gloves, chemical resistant coveralls and footwear			
<b>Eyes</b>	Safety glasses or full face shield			
<b>Other</b>	None			

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<b>Section 9. Physical and Chemical Properties</b>	
<b>Physical State and Appearance</b>	White, granular solid
<b>Odour Threshold</b>	Not applicable
<b>pH</b>	12 (10 % solution)
<b>Boiling Point</b>	1390 °C
<b>Melting Point / Freezing point</b>	310 – 320 °C
<b>Evaporation Rate</b>	No data
<b>Vapour Density</b>	Not applicable
<b>Vapour Pressure</b>	Not applicable
<b>Specific Gravity / Relative Density</b>	2.13 @ 20 °C
<b>Solubility in Water</b>	Very soluble
<b>% Volatile</b>	Not applicable
<b>Other Data</b>	None

<b>Section 10. Stability and Reactivity</b>	
<b>Chemical Stability</b>	Stable
<b>Hazardous Polymerisation</b>	Will not occur
<b>Conditions to Avoid</b>	Addition of water directly to product
<b>Materials to Avoid</b>	Tin, aluminum, zinc, leather, wool, acids. Organic halogen compounds or organic nitro compounds. Magnesium metal, brass, bronze. Carbon monoxide gas may be produced on contact with reducing sugars. Water can cause violent and explosive reactions.
<b>Hazardous Decomposition Products</b>	None anticipated

<b>Section 11. Toxicological Information</b>	
<b>Principle Routes of Exposure</b>	
<b>Skin:</b>	Corrosive. Causes severe burns. Will cause burns with deep ulcerations, leading to scarring. Prolonged contact can destroy tissue. May cause dermatitis.
<b>Eyes:</b>	Corrosive. Causes severe eye burns. Small quantities can result in permanent damage and /or loss of vision.
<b>Inhalation:</b>	Corrosive. Inhalation of dusts or mists can cause damage to the upper respiratory tract and to the lung tissue depending on the degree of exposure. Effects can range from mild irritation to severe pneumonitis to complete destruction of the lung tissue.
<b>Ingestion:</b>	Corrosive. Ingestion can cause damage/burns to the mucous membranes, mouth and digestive tract. Ingestion of the product may result in death.
<b>Additional Information</b>	
<b>Acute Toxicity</b>	
Sodium hydroxide	LDLo: 500 mg / kg (Rabbit, oral)

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<b>Chronic Toxic Effects - None</b>
<b>Carcinogenicity – Not listed</b>
<b>Reproductive Toxicity / Teratogenicity / Embryotoxicity / Mutagenicity – None known</b>

<b>Section 12. Ecological Information</b>	
<b>Ecotoxicity</b>	Sodium hydroxide: LC50: 1149 mg/l (Rainbow trout) LC50: 152 mg/l (Chinook salmon)
<b>BOD and COD</b>	No data
<b>Biodegradability / OECD</b>	No data
<b>Toxicity of the Products of Biodegradation</b>	No data
<b>Special Remarks</b>	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

<b>Section 13. Disposal Considerations</b>	
Dispose of in accordance with local, provincial and federal regulations	

<b>Section 14. Transport Information</b>	
<b>TDG Classification</b>	SODIUM HYDROXIDE, SOLID Class 8, UN 1823 Packing Group II
<b>Emergency Response Guide #</b>	ERG # 154
<b>Marine Pollutant</b>	No
<b>Special Precautions</b>	None

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

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**Section 16. Other Information****Prepared by:**

Chemfax Products Ltd., Technical Department

**Date Prepared:** July 7, 2011**Revision Date:** June 24, 2014**Disclaimer**

Notice to reader

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