


# Safety Data Sheet

Section 1. Identification		
<b>Product Identifier</b>	<b>Sodium Silicate</b>	<b>Version: 5</b> <b>Effective Date: 20 February, 2016</b>
<b>Other Means Of Identification</b>	Silicic acid, sodium salt	
<b>Initial Supplier Identifier</b>	Chemfax Products Ltd. 11444 – 42 Street SE Calgary, AB T2C 5C4 Tel: 403-287-2055	
<b>Recommended Use and Restrictions On Use</b>	Adhesive, binder, pulp & paper, water treatment, catalysts, gels and drilling fluid additive. No restrictions.	
<b>Product Family</b>	Inorganic salt	
<b>24 Hour Emergency</b>	Canutec (613) 996-6666	

Section 2. Hazard Identification	
<b>Hazard Classification</b>	
<b>Health Hazards</b>	Skin Corrosion/Irritation – Category 2 Eye Damage/Irritation- Category 2A Acute Oral Toxicity – Category 4
<b>Signal Word</b>	Warning
<b>Hazard Statement</b>	Causes skin irritation. Causes serious eye irritation. Harmful if swallowed.
<b>Precautionary Prevention Statement</b>	Wash hands thoroughly after handling. Wear protective gloves, eye and face protection. Do not eat, drink or smoke when using this product.
<b>Precautionary Response Statement</b>	IF ON SKIN: Wash with plenty of water. Specific treatment: treat symptomatically. Do not induce vomiting unless directed by medical personnel. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

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	IF SWALLOWED: Call a doctor if you feel unwell. Rinse mouth.
<b>Precautionary Storage Statement</b>	No statement
<b>Precautionary Disposal Statement</b>	Dispose of contents/containers in accordance with local regulations.
<b>Other Hazards</b>	None

<b>Section 3. Composition / Information on Ingredients</b>			
<b>Chemical Name</b>	<b>Common Name or Synonyms</b>	<b>CAS NO. and Other Unique Identifiers</b>	<b>% by weight</b>
Sodium silicate	Silicic acid, sodium salt	1344-09-8	35 - 40

<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>	Immediately flush skin with running water. Remove and isolate contaminated clothing and shoes. Get medical attention if irritation develops and persists.
<b>Inhalation</b>	Remove victim to fresh air. If there is difficulty breathing, seek immediate medical attention.
<b>Ingestion</b>	If symptoms develop obtain medical attention or call POISON CONTROL CENTER. Do not induce vomiting unless directed to do so by medical personnel. If spontaneous vomiting occurs, keep head below hips to prevent aspiration of vomitus.
<b>Most Important Symptoms and Effects Both Acute and Delayed</b>	Alkaline. Irritating to eyes and skin. The toxicity of sodium silicate is dependent on the silica to alkali ratio and on the pH.
<b>Immediate Medical Attention and Special Treatment</b>	Treat symptomatically. No specific treatment.

<b>Section 5. Fire-Fighting Measures</b>	
<b>Suitable and Unsuitable Extinguishing Media</b>	Use extinguishing media suitable for surrounding fire. No known unsuitable extinguishing media.
<b>Hazardous Combustion Products</b>	Hydrogen.
<b>Specific Hazards Arising From the Product</b>	Aqueous solution. Non-combustible.

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<b>Special Protective Equipment and Precautions For Fire-Fighters</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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Section 6. Accidental Release Measures	
<b>Personal Precautions, Protective Equipment and Emergency Procedures</b>	Gloves (neoprene), coveralls, footwear suitable for work site. Evacuate unnecessary personnel. Dike and soak or pump up spilled material.
<b>Environmental Precautions</b>	Do not allow spilt material to enter surface drains and watercourses.
<b>Methods and Materials For Containment and Clean-Up</b>	Soak or pump up spilt material. Place in a container suitable for disposal. Wash area with water to remove residues.

Section 7. Handling and Storage	
<b>Precautions For Safe Handling</b>	Handle with care. Good house keeping practices should be in place.
<b>Conditions For Safe Storage</b>	Store in a cool dry place. Keep containers closed when not in use.

Section 8. Exposure Controls / Personal Protection				
<b>Control Parameters</b>	<b>TWA: 8 Hr</b>	<b>STEL: 15 min</b>	<b>Ceiling</b>	<b>IDLH *</b>
Sodium silicate	Not established *Immediately Dangerous to Life and Health			
<b>Exposure Controls</b>	Local exhaust ventilation			
<b>Appropriate Engineering Controls</b>	Ensure safety shower and eye wash station are available.			
<b>Individual Protective Measures</b>	Not required under normal conditions of use:			
<b>Eye/Face Protection</b>	Chemical safety goggles.			
<b>Skin Protection</b>	Wear long sleeves			
<b>Respiratory Protection</b>	Not required under normal conditions of use.			

Section 9. Physical and Chemical Properties	
<b>Appearance</b>	Clear to hazy white thick liquid
<b>Odour</b>	Slight musty odour

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<b>Odour Threshold</b>	Not available.
<b>pH</b>	11.3 as supplied
<b>Flash Point</b>	> 100 °C
<b>Boiling Point and Boiling Range</b>	Not determined
<b>Melting Point and Freezing Point</b>	Not determined
<b>Evaporation Rate</b>	Not determined
<b>Flammability (solid, gas)</b>	Not applicable
<b>Upper and Lower Flammability or Explosive Limits</b>	No data
<b>Vapour Pressure</b>	Not determined
<b>Vapour Density</b>	Not determined
<b>Relative Density</b>	1.394
<b>Solubility</b>	Soluble
<b>Partition co-efficient, n-Octanol/Water</b>	No data
<b>Auto-ignition Temperature</b>	No data
<b>Decomposition Temperature</b>	No data
<b>Viscosity</b>	No data

Section 10. Stability and Reactivity	
<b>Reactivity</b>	Reacts with acids
<b>Chemical Stability</b>	The product is stable
<b>Possibility of Hazardous Reactions</b>	None known.
<b>Conditions to Avoid</b>	None known.
<b>Incompatible Materials</b>	Flammable hydrogen gas may be produced on contact with aluminium, tin, lead and zinc. May react with aluminium salts resulting in the evolution of ammonia. Gels and generates heat when mixed with acids.
<b>Hazardous Decomposition Products</b>	Under normal storage condition decomposition will not occur. NOTE: Dries to form a glass-like film which can easily cut skin.

Section 11. Toxicological Information			
Component Toxicity	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium Silicate	1.96g/kg (Rat)	>4.64g/kg (Rabbit)	No data

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<b>Likely Routes of Exposure</b>	
<b>Skin:</b>	Causes moderate skin irritation.
<b>Eyes:</b>	May cause eye irritation.
<b>Inhalation:</b>	May cause irritation of the upper respiratory tract.
<b>Ingestion:</b>	May cause irritation to the mouth, oesophagus, stomach and digestive tract.
<b>Acute Toxicity Estimates (ATE)</b>	All symptoms of acute toxicity are due to high alkalinity. Material will cause irritation. Oral LD50 (rat) 3400 mg/kg bw Mist is irritant to the respiratory tract. All symptoms of acute toxicity are due to high alkalinity. Inhalation LC50 (rat) >2.06 g/m <sup>3</sup>
<b>STOT (Specific Target Organ Toxicity) – Single Exposure</b>	Not classified.
<b>Aspiration Toxicity</b>	Not classified.
<b>STOT (Specific Target Organ Toxicity) – Repeated Exposure</b>	Not classified. NOAEL oral (rat) >159 mg/kg bw/d
<b>Skin Corrosion / Irritation</b>	Irritating
<b>Serious Eye Damage / Irritation</b>	Irritating
<b>Respiratory or Skin Sensitization</b>	Not sensitizing
<b>Carcinogenicity</b>	Not listed.
<b>Reproductive Toxicity</b>	
- <b>Sexual Function and Fertility</b>	No evidence of reproductive toxicity or developmental toxicity.
- <b>Development of Offspring</b>	Not classified
- <b>Effects on or via Lactation</b>	Not classified
<b>Germ Cell Mutagenicity</b>	No evidence of genotoxicity. In vitro/in vivo negative.
<b>Interactive Effects</b>	No data
<b>Other Information</b>	None known

<b>Section 12. Ecological Information</b>	
<b>Ecotoxicity</b>	LC50 301 – 478 mg/L (Lepomis macrochirus) 96 hr LC50: 3185 mg/L (Brachydanio rerio) 96 hr semi static.
<b>Persistence and Degradability</b>	Will not persist

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<b>Bioaccumulative Potential</b>	Not available
<b>Mobility in Soil</b>	Not available
<b>Other Adverse Effects</b>	Due to the high pH of this material undiluted or un-neutralised material is harmful to aquatic life.

## Section 13. Disposal Considerations

<b>Disposal Considerations</b>	Dispose of contents / container in accordance with local regulations.
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## Section 14. Transport Information

<b>UN Number</b>	Not applicable
<b>UN Proper Shipping Name</b>	Not applicable
<b>Transport Hazard Class(es)</b>	Not applicable
<b>Packaging Group</b>	Not applicable
<b>Environmental Hazards</b>	Not applicable
<b>Bulk Transport</b>	Not applicable
<b>Special Precaution</b>	Not applicable
<b>DOT Erg#</b>	Not applicable

## Section 15. Regulatory Information

<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>Additional Information</b>	None

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Section 16. Other Information	
<b>NFPA Rating</b>	Health-2/ Flammability-0/Reactivity-0/Special Hazard-Not applicable
<b>HMIS Rating</b>	Health-2/Flammability-0/Reactivity-0/Personal Protection-See Section 8.
<b>Prepared by:</b>	Chemfax Products Ltd., Technical Department
<b>Date Prepared:</b>	28 September, 2012
<b>Date of Latest Revision:</b>	20 February, 2016
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