


Safety Data Sheet

Section 1. Identification		
Product Identifier	Sodium Silicate	Version: 6 Effective Date: 25 January 2021
Other Means Of Identification	Silicic acid, sodium salt	
Initial Supplier Identifier	Chemfax Products Ltd. 11444 – 42 Street SE Calgary, AB T2C 5C4 Tel: 403-287-2055	
Recommended Use and Restrictions On Use	Adhesive, binder, pulp & paper, water treatment, catalysts, gels and drilling fluid additive. No restrictions.	
Product Family	Inorganic salt	
Emergency Phone	1-855-887-2055 Monday - Friday 8:00am - 4:30pm MST	

Section 2. Hazard Identification	
Hazard Classification	
Health Hazards	Skin Corrosion/Irritation – Category 2 Eye Damage/Irritation- Category 2A Acute Oral Toxicity – Category 4
Signal Word	Warning
Hazard Statement	Causes skin irritation. Causes serious eye irritation. Harmful if swallowed.
Precautionary Prevention Statement	Wash hands thoroughly after handling. Wear protective gloves, eye and face protection. Do not eat, drink or smoke when using this product.
Precautionary Response Statement	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: Seek medical attention. Remove 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, seek medical attention.

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	IF SWALLOWED: Call a doctor if you feel unwell. Rinse mouth.
Precautionary Storage Statement	No statement
Precautionary Disposal Statement	Dispose of contents/containers 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 Identifiers	% by weight
Sodium silicate	Silicic acid, sodium salt	1344-09-8	35 - 40

Section 4. First-Aid Measures	
Eye Contact	Flush eyes with water for 15 minutes. Seek medical attention.
Skin Contact	Immediately flush skin with running water. Remove and isolate contaminated clothing and shoes. Get medical attention if irritation develops and persists.
Inhalation	Remove victim to fresh air. If there is difficulty breathing, seek immediate medical attention.
Ingestion	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.
Most Important Symptoms and Effects Both Acute and Delayed	Alkaline. Irritating to eyes and skin. The toxicity of sodium silicate is dependent on the silica to alkali ratio and on the pH.
Immediate Medical Attention and Special Treatment	Treat symptomatically. No specific treatment.

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

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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.
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Section 6. Accidental Release Measures

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

Section 7. Handling and Storage

Precautions For Safe Handling	Handle with care. Good housekeeping practices should be in place.
Conditions For Safe Storage	Store in a cool dry place. Keep containers closed when not in use.

Section 8. Exposure Controls / Personal Protection

Control Parameters	TWA: 8 Hr	STEL: 15 min	Ceiling	IDLH *
Sodium silicate	Not established *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	Not required under normal conditions of use:			
Eye/Face Protection	Chemical safety goggles.			
Skin Protection	Wear long sleeves			
Respiratory Protection	Not required under normal conditions of use.			

Section 9. Physical and Chemical Properties

Appearance	Clear to hazy white thick liquid
Odour	Slight musty odour

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

Section 10. Stability and Reactivity	
Reactivity	Reacts with acids
Chemical Stability	The product is stable
Possibility of Hazardous Reactions	None known.
Conditions to Avoid	None known.
Incompatible Materials	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.
Hazardous Decomposition Products	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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Likely Routes of Exposure	
Skin:	Causes moderate skin irritation.
Eyes:	May cause eye irritation.
Inhalation:	May cause irritation of the upper respiratory tract.
Ingestion:	May cause irritation to the mouth, oesophagus, stomach and digestive tract.
Acute Toxicity Estimates (ATE)	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 ³
STOT (Specific Target Organ Toxicity) – Single Exposure	Not classified.
Aspiration Toxicity	Not classified.
STOT (Specific Target Organ Toxicity) – Repeated Exposure	Not classified. NOAEL oral (rat) >159 mg/kg bw/d
Skin Corrosion / Irritation	Irritating
Serious Eye Damage / Irritation	Irritating
Respiratory or Skin Sensitization	Not sensitizing
Carcinogenicity	Not listed.
Reproductive Toxicity	
- Sexual Function and Fertility	No evidence of reproductive toxicity or developmental toxicity.
- Development of Offspring	Not classified
- Effects on or via Lactation	Not classified
Germ Cell Mutagenicity	No evidence of genotoxicity. In vitro/in vivo negative.
Interactive Effects	No data
Other Information	None known

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

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

Section 13. Disposal Considerations

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

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

Section 15. Regulatory Information

Canada – DSL Inventory	All components of this product are either on the Domestic Substances List (DSL), 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

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Section 16. Other Information	
NFPA Rating	Health-2/ Flammability-0/Reactivity-0/Special Hazard-Not applicable
HMIS Rating	Health-2/Flammability-0/Reactivity-0/Personal Protection-See Section 8.
Prepared by:	Chemfax Products Ltd., Technical Department
Date Prepared:	28 September, 2012
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Disclaimer	
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