MATERIAL SAFETY DATA SHEET (MSDS)

SODIUM SILICATE LIQUID

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company Identification: Blue Sky for chemical industries

139, A4, Industrial area, 10th Ramadan,

Al Sharqya, Egypt.

Contact: +2 01222496749

Email: Hazem.badr@blueskyco.net

Product: Sodium silicate liquid, Water Glass

Trade Name: Sodium silicate liquid.

Product Use: Soap & Detergents, Gels, Adhesive, Water treatment, Foundries, Ceramic, construction, Pulp & Paper, Mining, Cleaning Industries, and Paint.

2. COMPOSITION/ INFORMATION ON INGREDIENTS

Component	Percentage	CAS Number	EINECS No./ REACH Registration
Sodium Silicate	34-52%	1344-09-8	215-687-4 01-2119448725-31
Water	48-66%	7732-18-5	231-791-2

Chemical composition: non-dusting homogeneous formulation of Soda Ash with Silica Sand and water.

3. HAZARD IDENTIFICATION

Emergency Overview: Clear to hazy, colourless, odourless, thick liquid, Causes eye, skin, and digestive tract irritation. Spray mist causes irritation to respiration tract. High PH is harmful to aquatic life. Non-combustible. Spills are slippery. Reacts with acids, ammonium salts, reactive metals and some organics.

Eye contact:	Causes irritation.
Skin contact:	Causes irritation.
Inhalation:	Spray mist irritating to respiratory system.
Ingestion:	May cause irritation to mouth, oesophagus, and stomach.
Chronic Hazard:	No known chronic hazards.
Physical Hazards:	Dries to form glass film which can easily cut skin. Spilled material is very slippery. Can etch glass if not promptly removed.
Carcinogen status:	OSHA No.
	NTP No.
	LARC No.
Trade name:	Sodium silicate liquid.

4. FIRST AID MEASURES

Eye:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Skin:	In case of contact, immediately flush skin with plenty of water Remove contaminated clothing and shoes. Get medical attention.
Inhalation:	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion:	If swallowed, DO NOT induce vomiting. Get medical attention immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

5. FIRE-FIGHTING MEASURS

Flammable Properties:	This material is non-combustible.
Extinguishing Media:	This material is compatible with all extinguishing media.

Hazards to Fire-Fighters:	See Section 3 for information on hazards when this material is present in the area of a fire.
Fire-fighting Equipment:	The following protective equipment for fire fighters is recommended when this material is present in the area of a fire: chemical goggles, body-covering protective clothing, chemical resistant gloves, and rubber boots.

6. ACCIDENTAL RELEASE MEASURES:

Personal protection:	Wear chemical goggles, body-covering protective clothing, chemical resistant gloves, and rubber boots. See section 8.
Environmental hazards:	Skins and mixes with water. High pH of this material is harmful to aquatic life, see Section 12. Only water will evaporate from a spill of this material. Keep out of water supplies, sewers, and reservoirs.
Small spill clean-up:	Mop up and neutralize liquid, dispose in accordance with federal, provincial and local regulations or permits.
Trade Name:	Sodium silicate liquid

7. HNADLING AND STORAGE

Handling:	Avoid contact with eyes, skin and clothing. Avoid breathing spray mist. Keep container closed. Promptly clean residue from closures with cloth dampened with water. Promptly clean up spills.
Storage:	Keep containers closed. Store in clean steel or plastic containers. Separate from acids, reactive metals, and ammonium salts. Storage temperature 0-95°C. Loading temperature 45 – 95°C. Do not store in aluminium, fiberglass, copper, brass, zinc or galvanized containers.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Engineering controls:	Use with adequate ventilation. Keep containers closed. Safety shower and eyewash fountain should be within direct access.
Respiration protection:	Use a NIOSH-approved dust and mist respirator where spray mist occurs. Obverse Provincial regulations for respirator use.
Skin protection:	Wear body-covering protective clothing and gloves.
Eye protection:	Wear chemical googles.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Liquid.
Colour:	Clear to Opaque.
Odour:	Odourless or musty odour.
PH:	Approximately 11.0 – 12.7
Specific gravity:	1.42 – 1.70
Solubility in water:	Miscible.
Boiling point:	101˚C – 102 ˚C (214 - 216˚C).
Freezing point:	-1˚C.
Trade Name:	Sodium silicate liquid.

10. STABILITY AND REACTIVITY

Stability:	This material is stable under all conditions of use and storage.
Conditions to avoid:	Prolong storage above 60°C.
Materials to avoid:	Gels and generates heat when mixed with acid. May react with ammonium salts resulting in evolution of ammonia gas. Flammable hydrogen gas may be produced on contact with aluminium, tin, lead, and zinc.

Hazardous decomposition products: Hydrogen.

11. TOXICOLOGICAL INFORMATION

Toxicity Data: Inhalation may cause irritation of the respiratory tract, possibly with coughing, choking and pain either immediately or more often within 72 hours. Depending on the concentration and duration of exposure, repeated or prolonged exposure may cause inflammatory changes in the nose, sinuses and bronchial regions. Direct skin contact may cause irritation. Repeated or prolonged contact may result in dermatitis. Direct contact to eyes may cause severe irritation, pain and burns, possibly severe. The degree of injury depends on the concentration and duration of contact. The full extent of the injury may not be immediately apparent. Repeated or prolonged contact may result in conjunctivitis, lens damage or other effects including blindness. Ingestion may cause irritation of the oesophagus and gastrointestinal tract.

12. ECOLOGICAL INFORMATION

Fish Toxicity: This material has exhibited high toxicity to aquatic organisms.

Fate and Transport:

Biodegradation: This material is inorganic and not subject to Biodegradation.

Persistence: This material is believed to persist in the environment.

Bioconcentration: This material is believed not to bioaccumulate.

Other ecological information: This material has exhibited slight toxicity to terrestrial organisms.

13. DISPOSAL CONSIDERATIONS

Disposal Method: Reuse or reprocess if possible. Dispose in accordance with all applicable regulations.

14. TRANSPORT INFORMATION

TDG UN Status: Not regulated.

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15. REGULATORY INFORMATION

TSCA: All ingredients of this material are listed on the TSCA inventory.

16. OTHER INFORMATION

Prepared by: BlueSky for chemical industries.

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