SAFETY DATA SHEET

Aqua Glass 38

SECTION 1: IDENTIFICATION

Product identifier used on a label:	**Aqua Glass 38**
Synonyms:	Liquid Sodium Silicate; Water glass
Product code:	5501
HS Code:	283919
CAS Number:	1344-09-8
Recommended use of the chemical and restrictions on use:	Adhesives and binders; pulp and paper; deinking; detergents/soaps; catalysts; drilling fluids; textiles; mineral processing; refractory cements, zeolites. Uses advised against: Neutralizing acidic wastewater.
Chemical family:	Mixture.
Chemical formula:	Na_2O x SiO ($x \geq 3.00$ by wt.)
Name, address and phone # of supplier:	Aqua Bond Inc. 440 Passmore Ave. Toronto, ON, M1V 5J8 (416) 754-7211
24 Hr. Emergency phone #	**CANUTEC (613) 996-6666**

SECTION 2: HAZARDS IDENTIFICATION

Classification of the chemical:	This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).
Hazard classification:	Skin Corrosion/Irritation: Category 2 – Causes skin irritation. Eye Damage/Irritation: Category 1 – Causes serious eye damage. Acute Toxicity – Oral: Category 4 – Harmful if swallowed.
Label elements:	
Signal word:	Danger
Hazard statements:	H318: Causes serious eye damage. H315: Causes skin irritation. H302: Harmful if swallowed.
Precautionary statements:	P264: Wash skin thoroughly after handling. P280: Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P260: Do not breathe mist, vapors or spray. P270: Do not eat, drink or smoke when using this product.
Other hazards:	Dries to form glass film that can easily cut skin. Spilled material is very slippery. Can etch glass if not promptly removed.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/ mixture: Mixture

Ingredient name	CAS Number	Concentration (wt. %)
Silicic acid, sodium salt	1344-09-8	15-55%
Water	7732-18-5	45-85%

SECTION 4: FIRST-AID MEASURES

Description of first aid measures:

Ingestion	If swallowed, DO NOT induce vomiting, rinse mouth. Get medical attention immediately.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Skin contact	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention.
Eye contact	Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention immediately.

Most important symptoms and effects, both acute and delayed:

Causes irritation of the eyes and skin, Spray mist may cause respiratory irritation. May cause irritation to mouth, esophagus, and stomach. Avoid exposure to eyes, skin, inhalation or ingestion.

Indication of any immediate medical attention and special treatment needed: None known.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media:	Substance is non-combustible.
Suitable	Compatible with all extinguishing media.
Unsuitable	None.
Special hazards arising from the substance:	If exposed to contact with aluminum, tin, lead, and zinc, may produce flammable hydrogen.
Hazardous thermal decomposition products:	None.
Special protective actions for fire-fighters:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate

	respirator when ventilation is inadequate. Put on appropriate personal protective equipment. Wear chemical goggles, body-covering protective clothing, chemical resistant gloves, and rubber boots.
Environmental precautions:	Material sinks and mixes with water. High pH of this material is harmful to the aquatic life, see Section 12. Only water will evaporate from a spill of this material. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods and materials for containment and cleaning up:	Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. Large spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.
Special spill response procedures:	In case of transportation accident, contact CHEMTREC at 1-800-424-9300.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling:	Put on appropriate personal protective equipment. Avoid exposure – obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Do not reuse container.
Conditions for safe storage:	Store in accordance with local regulations. Store in a segregated and approved area. Store in either original container or in clean steel or plastic container. Do not store in aluminum, fiberglass, copper, brass, zinc or galvanized containers. Store protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials, food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be resealed and kept upright. Do not store in unlabeled containers.
Incompatible materials:	Acids, with aluminum, brass, bronze, copper, tin, lead, zinc, and ammonium salts.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Exposure limits

Ingredient	**Exposure limits**
Silicic acid, sodium salt	Not available.
Engineering controls:	Use with adequate ventilation.
Individual protection measures:	Eyes/face: Chemical splash goggles and face shield. Skin: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Respiratory: Wear appropriate respirator where spray mist occurs. Be sure to use a NIOSH approved dust and mist respirator or equivalent.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear to opaque colorless to slight tint liquid.
Odor:	Odorless to slight odor.
Odor threshold:	Not available.
pH:	11-12
Melting point:	Not available.
Freezing point:	-1°C / 30°F.
Initial boiling point and boiling range:	101°C / 214°F.
Flash point:	Not available as material is non-combustible.
Evaporation rate:	Not available.
Flammability:	Not flammable.
Upper and lower flammability limits:	Not applicable.
Vapour pressure:	Not available.
Vapour density:	Not available.
Relative density:	1.39-1.41 g/cm^2 at 20°C
Solubility:	Miscible.
Partition coefficient n-octanol/water:	Not available.
Auto-ignition temperature:	Not applicable.
Decomposition temperature:	Not available.
Viscosity:	Not available.

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	Reacts with acids, ammonium salts, aluminum, tin, lead, and zinc.
Chemical stability:	Stable.

Possibility of hazardous reactions:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid:	Prolonged storage above 60°C.
Incompatible materials:	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 aluminum, brass, bronze, copper, tin, lead, and zinc.
Hazardous decomposition products:	Hydrogen.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicity data:	LD50 Oral: 1153 mg/kg (Rat) LD50 Dermal: 4640 mg/kg (Rabbit)
Information on the likely routes of exposure:	Skin and Eyes: yes Inhalation: yes Ingestion: yes
Potential health effects (acute):	Eye: Causes serious eye damage. May cause severe irritation, pain and corneal burns (possibly leading to blindness). The full extent of injury may not be immediately apparent. Skin: Causes skin irritation. Contact with skin may result in redness, itching, irritation, burning sensation, and swelling. Inhalation: Inhalation of mist, vapor or spray may cause irritation of respiratory tract, possibly with coughing, choking, and pain either immediately or within 72 hours. Ingestion: Harmful if swallowed. May cause immediate pain and severe burns of the upper and lower gastrointestinal tract with vomiting, nausea, and diarrhea.
Delayed and immediate effects, chronic effects from short and long term exposure:	Repeated or prolonged skin contact may result in dermatitis.
Potential chronic health effects:	None known.
Carcinogenicity:	Not listed as a carcinogen.
Mutagenicity:	No known significant effects or critical hazards.
Teratogenicity:	No known significant effects or critical hazards.
Developmental effects:	No known significant effects or critical hazards.
Fertility effects:	No known significant effects or critical hazards.
Sensitization:	No known significant effects or critical hazards.
Toxicological effects:	No known significant effects or critical hazards.
Acute toxicity:	No known significant effects or critical hazards.
Irritation/corrosion:	Causes serious eye damage. Causes skin irritation.

Specific target organ toxicity single exposure: Not classified.

Specific target organ toxicity repeated exposure: Not classified.

Aspiration hazard: Not classified.

SECTION 12 ECOLOGICAL INFORMATION

Toxicity: This product has exhibited moderate toxicity to aquatic organisms and slight toxicity to terrestrial organisms

Persistence and degradability: This material is inorganic and not subject to biodegradation. This material is believed to persist in the environment.

Bioaccumulative potential: This material is not expected to bioconcentrate in organisms.

Mobility in soil: Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: TRANSPORT INFORMATION

	TDG
UN Number:	Not regulated.
UN proper shipping name:	-
Transport hazard class:	-
Packing group:	-
Environmental hazard:	No.
Special precautions for user:	**Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

SECTION 15: REGULATORY INFORMATION

United States	
Toxic Substances Control Act (TSCA)	Listed.
Superfund Amendments and Reauthorization Acts	No.
Canada	
Canadian Domestic Substances List (DSL):	Listed.

SECTION 16: OTHER INFORMATION

Revision date: September 30, 2019

UN = United Nations

Disclaimer

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