SAFETY DATA SHEET

Spotless™ Al- Etch

SECTION 1: IDENTIFICATION

Product identifier used on a label:	**Spotless™ Al- Etch**
Product code:	5045
Recommended use of the chemical and restrictions on use:	Alkaline etchant for use on aluminum and aluminum alloys.
Chemical family:	Inorganic alkalis.
Name, address and phone # of supplier:	Aqua Bond Inc. PO Box 63635, ON, M1V 5K2 (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- Category 1
EYE DAMAGE-Category 1
SPECIFIC TARGET ORGAN TOXICITY SINGLE EXPOSURE-Category 1 (respiratory)

Label elements:



Signal word: Danger

Hazard statements:
Causes severe skin burns and eye damage.
Causes damage to organs (respiratory tract).

Precautionary statements: Do not breathe mist, vapours, spray. Do not eat, drink or smoke when using this product. Wash exposed skin thoroughly after handling. Avoid release to the environment. Wear protective gloves, protective clothing, eye protection, face protection. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): remove/take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse.
Store locked up. Dispose of contents/container to comply with local, state and federal regulations.

Other hazards: No additional hazards available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/ mixture: Mixture.

Ingredient name	CAS Number	Concentration (%)
Sodium hydroxide	1310-73-2	50-70
CSDS	1344-09-8	1-10
Glucose	50-99-7	1-10
Sodium Salt of Gluconic Acid	527-07-1	1-10

SECTION 4: FIRST-AID MEASURES

Description of first aid measures:

Ingestion: Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Do not give activated charcoal. Do not give chemical antidote. Immediately call a POISON CENTER or doctor/physician. Call Poison Information Centre. Take the container/vomit to the doctor/hospital. Ingestion of large quantities: immediately to hospital. Rinse mouth. Do NOT induce vomiting.

Inhalation: Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that mists are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.

Skin contact: Wash immediately with lots of water (15 minutes). Do not apply (chemical) neutralizing agents. Remove clothing while washing. Do not remove clothing if it sticks to the skin. Cover wounds with sterile bandage. Consult a doctor/medical service. If burned surface > 10%: take victim to hospital. Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.

Eye contact: Get medical attention immediately. Call a poison center or physician. Check for and remove any contact lenses. Immediately flush eyes with running water for at least 30 minutes, keeping eyelids open. Chemical burns must be treated promptly by a physician.

Most important symptoms and effects, both acute and delayed:

Causes severe skin burns and eye damage. If inhaled high concentrations the symptoms include dry and sore throat, coughing, irritation of the respiratory tract and nasal mucous membranes. Delayed symptoms include laryngeal spasm/edema, lung edema, and respiratory difficulties. Skin contact causes burns with slow healing wounds. Eye contact causes permanent eye damage. Ingestion of the substance causes vomiting, diarrhea, burns to the gastrointestinal tract, shock. Chronic exposure causes dry skin, rash, irritation and inflammation of respiratory tract.

Indication of any immediate medical attention and special treatment needed:

No specific treatment. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media:

Suitable	Use foam, dry powder, carbon dioxide, water spray, sand.
Unsuitable	None known.
Special hazards arising from the substance:	This product is non-combustible. On heating: release of corrosive gases/vapours. Absorbs the atmospheric CO2. Violent exothermic reaction with strong acids. Reacts with certain metals by releasing highly flammable gases/vapours (hydrogen).
Hazardous thermal decomposition products:	Carbon dioxide and carbon monoxide.
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 vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
Environmental precautions:	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:	Contain released substance, pump into suitable containers. Plug the leak, cut off the supply. Dam up the liquid spill. Take account of toxic/corrosive precipitation water. Take up liquid spill into absorbent material, e.g.: dry sand/earth or powdered limestone. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Small quantities of liquid spill: neutralize with acid solution. Wash away neutralized product with plentiful water. Damaged/cooled tanks must be emptied. Clean contaminated surfaces with an excess of water. Take collected spill to proper disposal company. Wash clothing and equipment after handling.
Special spill response procedures:	In case of transportation accident, contact CANUTEC (613) 996-6666.

SECTION 7: HANDLING AND STORAGE	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 vapour 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.
Precautions for safe handling: Put on appropriate	

	Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous.
Conditions for safe storage:	Do not store below the following temperature: 15°C. Store in accordance with local regulations. Store in a segregated and approved area. Store in original container 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. Suitable container material is stainless steel, nickel, polyethylene, polypropylene, glass, porcelain. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
Incompatible materials:	Acids, metals such as aluminum or galvanized steel.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Exposure limits

Ingredient	**Exposure limits**
Sodium hydroxide	**NIOSH REL** C 2 mg/m^3 **OSHA PEL** TWA 2 mg/m^3
Engineering controls:	Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Emergency eye wash stations and safety showers should be available in the immediate vicinity of any potential exposure.
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. Personal protective equipment for the body should be corrosion proof. Respiratory: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Off-white solids.
Odour:	Mild.
Odour threshold:	Not available.
pH:	Not available.
Melting point:	Not available.

Freezing point:	Not available.
Initial boiling point and boiling range:	Not available
Flash point:	Not applicable.
Evaporation rate:	Not available.
Flammability:	Not flammable.
Upper and lower flammability limits:	Not applicable.
Vapour pressure:	Not available.
Vapour density:	Not available.
Relative density:	Not available
Solubility:	Miscible in cold and hot water.
Partition coefficient n-octanol/water:	Not available.
Auto-ignition temperature:	Not available.
Decomposition temperature:	Not available.
Viscosity:	Not applicable.

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	On heating: release of corrosive gases/vapours. Absorbs the atmospheric CO_2. Violent exothermic reaction with (some) acids. Reacts with certain metals: release of highly flammable gases/vapours (hydrogen).
Chemical stability:	The product is stable. Hygroscopic.
Possibility of hazardous reactions:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid:	Direct sunlight. Extreme temperatures.
Incompatible materials:	Strong acids, metals.
Hazardous decomposition products:	Sodium oxide. Thermal decomposition generates corrosive vapours.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on the likely routes of exposure:	SKIN AND EYES: yes INHALATION: yes
Potential health effects (acute):	EYE: Causes serious eye damage. Adverse symptoms include corrosion of eye tissue, permanent blindness. INHALATION: Irritation of respiratory tract and nasal mucous membranes. SKIN: Causes severe burns. Slow-healing wounds. INGESTION: Causes burns to gastrointestinal tract, mucosa. Possible esophageal perforation. Symptoms are vomiting, diarrhea, bleeding of gastrointestinal tract, shock.
Delayed and immediate effects, chronic effects from short and long term exposure:	Possible laryngeal spasm/edema, lung edema, respiratory difficulties.

Potential chronic health effects:	Long term exposure to small concentrations lead to dry skin, skin rash and inflammation. Inflammation of respiratory tract.
Carcinogenicity:	Due to lack of data classification not possible.
Mutagenicity:	Due to lack of data classification not possible.
Teratogenicity:	Due to lack of data classification not possible.
Developmental effects:	No known significant effects or critical hazards.
Fertility effects:	No known significant effects or critical hazards.
Sensitization:	Due to lack of data classification not possible.

Toxicological effects:

Acute toxicity:

Product	Result	Species	Dose	Exposure
Sodium hydroxide	LD50, oral	Rabbit	325 mg/kg	-

Irritation/corrosion:

Product	Category	Species	Score	Exposure
Sodium hydroxide	Skin- corrosive	Pig	-	-

Specific target organ toxicity single exposure:

Name	Category	Route	Target organs
Sodium hydroxide	Category 1	Not applicable.	Respiratory tract irritation.

Specific target organ toxicity repeated exposure: Not available.

Target organs:	Not available.
Aspiration hazard:	Not available.

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Name	Result	Species	Exposure
Sodium hydroxide	LC50 196 mg/L	Poecilia reticulata	96 hr
	EC50 40.38 mg/L	Ceriodaphnia dubia	48 hr

Persistence and degradability Not available.

Bio accumulative potential Not available.

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 non-recyclable 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:	UN1823
UN proper shipping name:	CORROSIVE SOLID. N.O.S. (SODIUM HYDROXIDE) Transport hazard class: 8
Packing group:	II
Environmental hazard:	Marine pollutant.
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

Canada inventory (DSL): Listed.

SECTION 16: OTHER INFORMATION

Revision date: January 29, 2024

ATE = Acute Toxicity Estimate

BCF = Bio concentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

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