MATERIAL SAFETY DATA SHEET
8251 / 8252 / 8253

Canutec 1-613-996-6666 (24 hours)

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product identification :	8251 / 8252 / 8253
Product name :	AQUA LUM
Chemical family :	Mixture
Supplier / Manufacturer :	Auto-Chem Inc. 33 de Lyon Repentigny, QC, Canada J5Z 4Z3 Tel : 450-654-9292 Fax : 450-654-0633 www.autochem.com
Contact :	Jean Dagenais

2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS	Percentage	Exposure limits
Hydrofluoric acid	7664-39-3	3 – 7	LC50 5100 ppm/5 min., rat LC50 1300 ppm/60 min., rat LC50 6247 ppm/5 min., mouse TLV 3ppm, ACGIH PEL TWA 3ppp, OSHA STEL 6ppm/15 min., OSHA
Sulfuric acid	7664-93-9	7 - 13	LD50 2140 mg/kg, rat, oral LC50 1mg/m3, rat TWA 1 mg/m3, ACGIH
Ethoxylated alcohols C10-14	66455-15-0	1 – 5	No data.
Ethoxylated alcohols C10-16	68002-97-1	1 – 5	LD50 1840 mg/kg, rat, oral LD50 >2000 mg/kg, rabbit,dermal LC50 5.7 mg/l, rat

3. HAZARDS IDENTIFICATION

Routes of entry: Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects :

Eye contact : Liquid and vapour can cause an irritation or burn of the cornea.

Skin contact : Liquid and vapour can cause burns which may not be immediately be painful or visible. The product can penetrate the skin and attack tissues and bones. Burns over a large area (25 sq. in.) can cause hypocalcemia and other toxic effects which can be fatal. Can cause burns in case of prolonged contact.

Inhalation : Can irritate the nose, throat and respiratory system. Symptoms can appear after several hours. Severe exposure can cause burns of the nose and throat, inflammation of the lungs and pulmonary oedema. Other toxic effects can appear, including hypocalcemia, which must be treated immediately.

Ingestion : Ingestion can cause severe burns of the mouth, throat and stomach and can be fatal. Ingestion can cause hypocalcemia and systemic poisoning is possible unless medical treatment is promptly initiated.

Potential chronic health effects :
Prolonged exposure can cause changes in bones and articulations in humans. Prolonged contact can cause burns.

Eye contact : Overexposure cans cause irreversible damages to the cornea.
Skin contact : See above.
Inhalation : See above.
Ingestion : Harmful if swallowed.

4. FIRST AID MEASURES

Eyes : Rinse immediately with water or a saline solution for 15 to 20 minutes, lifting the upper and lower eyelids. Remove contact lenses. Obtain immediate medical attention.

Skin : In case of direct contact, rinse with running water 15 to 20 minutes. Remove contaminated clothing and wash with soap and water. Obtain medical attention if symptoms occur or if a large area is affected.

Inhalation : Remove person to fresh air. In case of respiratory failure, give artificial respiration. In case of respiratory distress, obtain medical attention.

Ingestion : Give milk or water. Do not induce vomiting. Never give anything by mouth to an unconscious or convulsing person. In case of respiratory or cardiac arrest, start cardio-pulmonary resuscitation and obtain medical attention. Get immediate medical attention.

Note to physician: For burns over a large area, ingestion or severe inhalation, systemic effects can appear. Check for and treat hypocalcemia, cardiac arrhythmia, hypomagnesemia, and hyperkalemia. Treat as chemical pneumonia.

5. FIRE FIGHTING MEASURES

Flash point : Does not apply.
Auto-ignition temperature : Does not apply.
Flammability limits – air (%) : LEL: UEL:
Extinguishing media : Suitable for cause of fire.
Protective equipment : Firefighters must wear adequate protective equipment and NIOSH/MSHA approved autonomous masks.
Hazardous combustion materials : Carbon oxides, sulphur oxides.
Recommendations: Move containers away from the source of fire if safe to do so. Do not disperse product with high pressure water jets. Dam water run-off. Cool containers with water.

6. ACCIDENTAL RELEASE MEASURES

Wear appropriate protection equipment. Limit access of spill area to qualified personnel. Good ventilation is necessary. Do not touch spilled product. Prevent spilled product from reaching sewers or waterways. Stop or restrain leak if safe to do so.

Small spill : Contain and absorb product with a non-reactive absorbent material. Neutralize with a weak solution of sodium bicarbonate. Clean with water. Store residues in a closed container and identify for elimination.

Large spill : Contain and absorb product with a non-reactive absorbent material. Neutralize with a weak solution of sodium bicarbonate. Clean with water. Store residues in a closed container and identify for elimination.

7. HANDLING AND STORAGE

Handling : Do not breathe vapours or aerosol. Avoid contact with eyes or skin by wearing appropriate equipment. Avoid contact with incompatible materials. Wash carefully after handling the product. Clean contaminated clothing before reuse. Empty containers may contain residue. Eliminate according to current regulations.

Storage : Store in a cool and dry area, well ventilated and away from incompatible products. Keep from freezing.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering controls : Use local ventilation to control vapours and aerosols.

Personal protection equipment for routine handling :

Eye :	Splash goggles.
Skin :	Long sleeves, lab coat.
Gloves :	Impermeable gloves.
Inhalation :	If necessary, use NIOSH/MSHA approved mask.

Personal protection equipment for spills :

Eyes :	Splash goggles.
Skin :	Impermeable clothes.
Gloves :	Impermeable gloves, chemical resistant.
Inhalation :	NIOSH/MSHA approved mask. If in an enclosed space, an autonomous mask is recommended.

Note : These precautions are for room temperature handling. Use at elevated temperatures or aerosol spray applications may require added protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state :	Transparent liquid.
Coulour :	Colourless.
Odour :	Acid.
pH @ 1% :	1
Relative density (g/cm3) :	1.145
Boiling point :	100 C
Freezing point :	0 C
Vapour pressure :	Not determined.
Volatiles (weight) :	Not determined.
Solubility (water) :	Soluble.
VOC (%) :	Not determined.
Viscosity :	Not determined.

10. STABILITY AND REACTIVITY

Chemical stability : Stable.
Hazardous polymerization : None known.
Conditions to avoid : None known.
Materials to avoid : Reaction with some metals can cause the formation of flammable hydrogen gas. Alkalis, strong oxidants.
Dangerous decomposition products : Carbon oxides, sulphur oxides.

11. TOXICOLOGICAL INFORMATION

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Ingestion : Ingestion can cause severe burns of the mouth, throat and stomach and can be fatal. Ingestion can cause hypocalcemia and systemic poisoning is possible unless medical treatment is promptly initiated.

Potential chronic health effects :

Carcinogenic effects: None known.
Mutagenic effects: None known.
Teratogenic effects: None known.

Target organs: One of the components of the product can cause changes in bones and articulations in humans.

12. ECOLOGICAL INFORMATION

Ingredient	CAS	Test	Species
Hydrofluoric acid	7664-39-3	Toxic to aquatic life, tests not specified.	

Do not allow product or runoff to enter sewers or waterways. Some components may be harmful to aquatic life.

13. DISPOSAL CONSIDERATIONS

Waste disposal method : Dispose according to municipal, provincial and federal regulations.
Contaminated packaging : According to municipal, provincial and federal regulations.

14. TRANSPORT INFORMATION

Regulatory Information	Shipping name	UN	Class	PG
TDG Classification	Corrosive liquid, toxic, n.o.s. (Sulfuric acid, hydrofluoric acid)	2922	8 (6.1)	II

Limited quantity : 0.5 litre

15. REGULATORY INFORMATION

WHIMS (Canada):
- D1A Materials causing immediate and serious toxic effects.
- D2B Materials causing other toxic effects.
- E Corrosive materials.

DSL : All components of this product are either on the Domestic Substance List (DSL), the Non-Domestic Substance List (NDSL) or exempt.

TSCA : U.S. TSCA Inventory Status : All components of this product are either on the Toxic Substances Control Act Inventory List or exempt.

16. OTHER INFORMATION

Prepared by : Auto-Chem Inc. Date : Sept. 2015