SECTION 1 – STATEMENT OF CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

SUPPLIER:	Spitwater		
ADDRESS:	953 Metry St, Albury, NSW, 2640		
Trade Name:	**FlowRPM Acid Wash & Brightener**		
TELEPHONE:	1800 774 892	**WEB:**	spitwater.com.au
AH EMERGENCY TELEPHONE:	1300 774 575 in Australia (M-F 7am-7pm)	**Synonym:**	FRAWB
Substance:	Aqueous acidic	**Product Use:**	Aluminium cleaner and brightener
Creation Date:	27 November 2023	**Revision Date:**	27 November 2028

SECTION 2 – HAZARDS IDENTIFICATION

Classification of the substance or mixture	
Dangerous Goods	Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail".
GHS Classification	Acute Toxicity (Oral) - Category 3 Acute Toxicity (Dermal) - Category 2 Skin Corrosion - Category 1A Skin Sensitizer - Category 1 Eye Damage - Category 1 Acute Toxicity (Inhalation) – Category 2 Germ cell mutagenicity - Category 2
Poisons Schedule	S6
Label elements	
GHS label pictograms	
Signal word	**DANGER**
Hazard statement(s)	
H301	Toxic if swallowed.
H310	Fatal in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H330	Fatal if inhaled.
H341	Suspected of causing genetic defects.
Precautionary statement(s): General	
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.
Precautionary statement(s): Prevention	
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P264	Wash contaminated skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P262	Do not get in eyes, on skin or on clothing.
P280	Wear protective gloves, protective clothing and face protection.

P260	Do not breathe mists, fumes, vapours or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P271	Use only outdoors or in a well-ventilated area.
P284	In case of inadequate ventilation, wear respiratory protection.
Precautionary statement(s): Response	
P301+P310	IF SWALLOWED: Immediately call a POISON CENTRE or doctor.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P310	Immediately call a POISON CENTRE or doctor.
P361+P364	Take of immediately all contaminated clothing and wash it before reuse.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310	Immediately call a POISON CENTRE or doctor.
P320	Specific treatment is urgent (see first aid section of this SDS).
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical attention.
Precautionary statement(s): Storage	
P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
Precautionary statement(s): Disposal	
P501	Dispose of contents and container in accordance with local regulations.
Note	
IMPORTANT	This SDS and the Hazard Classifications contained therein, only apply to the product in its concentrated form, as supplied.

SECTION 3 – COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredients:	CAS Number:	Proportion (%w/w):
Sulphuric acid	7664-93-9	0-5
Ammonium Bifluoride (Liberates HF)	1341-49-7	0-4
Non-hazardous ingredients at the concentrations used	NA	balance

SECTION 4 – FIRST AID MEASURES

Inhalation	If fumes or combustion products are inhaled, remove person from contaminated area. Lay person down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. If person is conscious, give six calcium gluconate or calcium carbonate tablets in water by mouth. Transport to hospital, or doctor, without delay. Inhalation of vapours or aerosols (mists, fumes) may cause lung oedema. Corrosive substances may cause lung damage (e.g., lung oedema, fluid in the lungs). As this reaction may be delayed up to 24 hours after exposure, affected individuals need complete rest (preferably in semi-recumbent posture) and must be kept under medical observation even if no symptoms are (yet) manifested. Before any such manifestation, the administration of a spray containing a dexamethasone derivative or beclomethasone derivative may be considered. This must definitely be left to a doctor or person authorised.
Skin contact	Avoid further contact. Immediately remove contaminated clothing, including footwear.

	Flush skin under running water for 15 minutes. Avoiding contamination of the hands, massage calcium gluconate gel into affected areas, pay particular attention to creases in skin. Contact the Poisons Information Centre. Continue gel application for at least 15 minutes after burning sensation ceases. If pain recurs, repeat application of calcium gluconate gel or apply every 20 minutes. If no gel is available, continue washing for at least 15 minutes, using soap if available. If person is conscious, give six calcium gluconate or calcium carbonate tablets in water by mouth. Transport to hospital, or doctor, urgently.
Eye contact	Immediately hold eyelids apart and flush the eye continuously with running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Ingestion	For advice, contact a Poisons Information Centre or a doctor immediately. Urgent hospital treatment is likely to be needed. If swallowed do NOT induce vomiting. If vomiting occurs, lean person forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the person carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness (i.e., becoming unconscious). Give water to rinse out mouth, then provide liquid slowly, as much as the person can comfortably drink. Transport to hospital or doctor without delay.
Advice to Doctor	Subcutaneous injections of Calcium Gluconate may be necessary around the burnt area. Continued application of Calcium Gluconate Gel or subcutaneous Calcium Gluconate should then continue for 3-4 days at a frequency of 4-6 times per day. If a "burning" sensation recurs, apply more frequently. Systemic effects of extensive hydrofluoric acid burns include renal damage, hypocalcaemia and consequent cardiac arrhythmias. Monitor haematological, respiratory, renal, cardiac and electrolyte status at least daily. Tests should include FBE, blood gases, chest X-ray, creatinine and electrolytes, urine output, Ca ions, Mg ions and phosphate ions. Continuous ECG monitoring may be required. Where serum calcium is low, or clinical, or ECG signs of hypocalcaemia develop, infusions of calcium gluconate, or if less serious, oral Sandocal, should be given. Hydrocortisone 500 mg in a four to six hourly infusion may help. Antibiotics should not be given as a routine, but only when indicated. Eye contact pain may be excruciating and 2-3 drops of 0.05% pentocaine hydrochloride may be instilled, followed by further irrigation.

SECTION 5 – FIRE FIGHTING MEASURES	
Fire and Explosion Hazards	Non-combustible. Not considered to be a significant fire risk, Acids may react with metals to produce hydrogen, a highly flammable and explosive gas. Heating may cause expansion or decomposition leading to violent rupture of rigid containers. May emit acrid smoke. May emit corrosive and poisonous fumes. Decomposition may produce toxic fumes of hydrogen fluoride and sulphur oxides (SOx). May emit corrosive fumes.
Extinguishing Media	Foam, dry chemical powder or carbon dioxide

Fire Fighting	Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Use firefighting procedures suitable for surrounding area. Do NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire.
Flash Point	Does not flash
Hazchem	2W

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Emergency Procedures	Wear PPE in accordance with Section 8 of this SDS. Minor spill: Clean up spill immediately. Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite. Place in a suitable, labelled container for waste disposal. Major spill: Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. May be violently or explosively reactive. Increase ventilation. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water courses. Place inert absorbent material onto spillage. Collect the material and place into a suitable, labelled container. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

SECTION 7 – HANDLING AND STORAGE

Handling	DO NOT allow clothing wet with material to stay in contact with skin. Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. WARNING: To avoid violent reaction, ALWAYS add material to water and NEVER water to material. Avoid smoking, naked lights or ignition sources. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke.
Storage	Store locked up, in a cool, dry, well-ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat and/or ignition. Store only in original containers. Keep container standing upright. Keep containers closed when not in use - check regularly for leaks. This material is classified as a Class 8 Corrosive as per the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and/or the "New Zealand NZS5433: Transport of Dangerous Goods on Land" and must be stored in accordance with the relevant regulations.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits	National Occupational Exposure Limits, as published by Safe Work Australia: **Time-weighted Average (TWA):** None established for product. For ingredients: Sulphuric Acid: 1 mg/m^3 **Short Term Exposure Limit (STEL):** None established for product. For ingredients: Sulphuric Acid: 3 mg/m^3 **Peak:** None established for product. For ingredients: Hydrofluoric acid: 2.6 mg/m^3 (3ppm)
Ventilation	Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure.
Personal Protective Equipment	Use good occupational work practice. The use of protective clothing and equipment depends upon the degree and nature of exposure. The following protective equipment should be available;

Eye Protection 	Safety glasses and chemical goggles should be used. A face shield may be required for face protection, however must be used for supplementary protection, never primary protection, of eyes. Eye protection devices should conform to relevant regulations. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.
Hand Protection 	Wear elbow-length PVC gloves. Final choice of appropriate gloves will vary according to individual circumstances. i.e., methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.
Body Protection 	Suitable protective workwear (e.g., rubber or plastic apron, sleeves, rubber boots and PVC protective suit) are recommended. When handling liquids, wear protective clothing outside of boots to avoid spills entering boots.
Respirator 	If engineering controls are not effective in controlling airborne exposure, then a Type ABE-P filter respirator should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	**Colour**	Clear yellow
Odour	Acidic	**Specific Gravity**	1.1 @ 25°C
Boiling Point	>100°C	**Freezing Point**	Not available
Vapour Pressure	Not available	**Vapour Density**	Not available
Flash Point	Non-flammable	**Flammable Limits**	none
Water Solubility	Miscible in all proportions	**pH**	1-2

SECTION 10 – STABILITY AND REACTIVITY

Reactivity	Stable at normal temperatures and pressure. Contact with alkaline material liberates heat. Reacts with mild steel, galvanised steel, zinc producing hydrogen gas which may form an explosive mixture with air. Material is corrosive to most metals, glass and other siliceous materials
Conditions to Avoid	Extremes of temperature and direct sunlight. Avoid strong bases and chlorinated products. Segregate from alkalies, oxidising agents and chemicals readily decomposed by acids (i.e. cyanides, sulfides, carbonates).
Incompatibilities	Hydrofluoric Acid: -Reacts violently with strong oxidisers, acetic anhydride, alkalis, 2-aminoethanol, arsenic trioxide (with generation of heat), bismuthic acid, calcium oxide, chlorosulfonic acid, cyanogen fluoride, ethylenediamine, ethyleneimine, fluorine (fluorine gas reacts vigorously with a 50% -Reacts (possibly violently) with aliphatic amines, alcohols, alkanolamines, alkylene oxides, aromatic amines, amides, ammonia, ammonium hydroxide, epichlorohydrin, isocyanates, metal acetylides, metal silicides, methanesulfonic acid, nitrogen compounds, organic anhydrides, oxides, silicon compounds, vinylidene fluoride -Attacks glass and siliceous materials, concrete, ceramics, metals (flammable hydrogen gas may be produced), metal alloys, some plastics, rubber coatings, leather, and most other materials with the exception of lead, platinum, polyethylene, wax.
Hazardous Decomposition	Decomposition may produce toxic fumes of carbon dioxide, hydrogen fluoride and other pyrolysis products typical of burning organic material.

SECTION 11 – TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Inhalation	Inhalation of vapours, mists, fumes or spray, generated by the material during the course of normal handling, may produce toxic effects. Corrosive acids can cause irritation of the respiratory tract, with coughing, choking and mucous membrane damage. There may also be dizziness, headache, nausea and weakness.
Skin contact	Skin contact with the material may produce toxic effects; systemic effects may result following absorption. The material can produce chemical burns following direct contact with the skin. Healing is delayed and death of tissue may continue to spread beneath skin.
Eye contact	The material can produce chemical burns resulting in severe eye damage following direct contact. Vapours or mists may be extremely irritating. Direct eye contact with acid corrosives may produce pain, tears, sensitivity to light and burns. Mild burns of the epithelia generally recover rapidly and completely.
Ingestion	Severely toxic effects may result from the accidental ingestion of the material. The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion. Ingestion of acidic corrosives may produce burns around and in the mouth, the throat and oesophagus. Immediate pain and difficulties in swallowing and speaking may also be evident.
Chronic	Repeated or prolonged exposure to acids may result in the erosion of teeth, swelling and/or ulceration of mouth lining. Irritation of airways to lung, with cough, and inflammation of lung tissue often occurs.
Respiratory Sensitisation	Not expected to be a respiratory sensitizer.
Skin Sensitisation	Considered to be a skin sensitizer.
Germ cell mutagenicity	Considered to be a mutagenic hazard.
Reproductive Toxicity	Not considered to be toxic to reproduction.
STOT-single exposure	Not expected to cause toxicity to a specific target organ.
STOT-repeated exposure	Not expected to cause toxicity to a specific target organ.
Aspiration Hazard	Not expected to be an aspiration hazard.

SECTION 12 – ECOLOGICAL INFORMATION

Eco-toxicity	Harmful to aquatic life due to low pH.
Persistence and degradability	Not available
Bio accumulative potential	Not available
Mobility in soil	Not available
Other adverse effects	Not available
Environmental Protection	Do not discharge this material into waterways.

SECTION 13 – DISPOSAL CONSIDERATIONS

	Dispose of waste according to applicable local and national regulations. Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes including emptied containers are controlled wastes and should be disposed of in accordance with all applicable local and national regulations.

SECTION 14 – TRANSPORT INFORMATION

ADG	Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail".
Marine Pollutant	No
Land Transport (ADG)	
UN Number	2922
Proper Shipping Name	CORROSIVE LIQUID, N.O.S. (CONTAINS HYDROFLUORIC AND SULPHURIC ACIDS)
Class/Sub-Class	8
HAZCHEM Code	2W
Packing Group	II

ERG	37
Limited Quantity	1L
Segregation	Not to be loaded with explosives (Class 1), dangerous when wet substances (Class 4.3), oxidising agents (Class 5.1), organic peroxides (Class 5.2), radioactive substances (Class 7) or food and food packaging in any quantity. Note 1: Concentrated strong acids are incompatible with concentrated strong alkalis. Exemptions may apply.

SECTION 15 – REGULATORY INFORMATION

GHS Classification	Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.
SUSMP	S7 (Hydrofluoric Acid)
ADG Code	Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail".
AICS	All ingredients present on AICS

SECTION 16 – OTHER INFORMATION

Issue Date	27 November 2023
Version Number	V9: UN number update
Abbreviations and acronyms	**ADG Code**: Australian Code for the Transport of Dangerous Goods by Road and Rail. **AICS:** Australian Inventory of Chemical Substances. **CAS Number**: Chemical Abstracts Service Registry Number. **GHS**: Globally Harmonized System of Classification and Labelling of Chemicals **HAZCHEM:** An emergency action code which gives information to emergency services. **HCIS**: Hazardous Chemical Information System **SWA**: Safe Work Australia. **SDS**: Safety Data Sheet **STEL**: Short Term Exposure Limit. **SUSMP**: Standard for the Uniform Scheduling of Medicines and Poisons. **TWA**: Time Weighted Average. **UN Number**: United Nations Number.
Literature references	Preparation of Safety Data Sheets for Hazardous Chemicals – Code of Practice (Safe Work Australia) GHS Hazardous Chemical Information List (Safe Work Australia) Guidance on the Classification of Hazardous Chemicals under the WHS Regulations. Global Harmonized System of Classification and Labelling of Chemicals (GHS) “Australian Exposure Standards”. Safe Work Australia Australian Code for The Transport of Dangerous Goods by Road and Rail Standard for the Uniform Scheduling of Medicines and Poisons
Disclaimer	This SDS summarizes at the date of issue our best knowledge of the health and safety hazard information of this product, and in particular how to safely handle and use this product in the workplace. Since the supplier cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this SDS in the context of how the user intends to handle and use the product in the workplace. If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this supplier.

End of SDS