Safety Data Sheet

AQUAPAC
Water Treatment & Specialty Chemicals

Hazardous Chemical, Dangerous Goods

1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: Walltech 1

Recommended use: Calcium descalant

Supplier:	Aquapac Pty Ltd
ABN:	36 114 118 311
Street Address:	88 Lee Holm Road St Marys NSW 2760
Telephone:	02 9673 1192
Facsimile:	02 9673 1193

Emergency Telephone number: **1800 HELP**

2. HAZARDS IDENTIFICATION

This material is hazardous according to health criteria of Safe Work Australia.

Signal Word
Danger

Hazard Classifications
Corrosive to Metals - Category 1
Skin Corrosion/Irritation - Category 1B
Serious Eye Damage/Irritation - Category 1
Specific Target Organ Toxicity (Single Exposure) - Category 3 Respiratory Tract Irritation

Hazard Statements

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.

Prevention Precautionary Statements

P102	Keep out of reach of children.
P103	Read label before use.
P234	Keep only in original container.
P260	Do not breathe dust, fume, gas, mist, vapours or spray.
P261	Avoid breathing dust, fume, gas, mist, vapours or spray..
P264	Wash hands, face and all exposed skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective clothing, gloves, eye/face protection and suitable respirator.

Response Precautionary Statements

P101	If medical advice is needed, have product container or label at hand.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P321	Specific treatment (see product label).
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.

Storage Precautionary Statements

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P406	Store in original container with a resistant inner liner.

Disposal Precautionary Statement

P501	Dispose of contents/container in accordance with local, regional, national and international regulations.

Poison Schedule:

DANGEROUS GOOD CLASSIFICATION

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

Dangerous Goods Class: 8

3. COMPOSITION INFORMATION

CHEMICAL ENTITY	CAS NO	PROPORTION
Ammonium fluoride, ((NH4)(HF2))	1341-49-7	<2 %
Citric acid	77-92-9	<10 %
Hydrochloric acid	7647-01-0	5-25 % (w/w)
Surfactants		<5 % (w/w)
Water	7732-18-5	Balance %
Ingredients determined to be Non-Hazardous		Balance

4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

Inhalation: Remove the patient from the area, avoiding becoming a patient as well, and immediately call a POISON CENTER. IMMEDIATELY take the patient to a hospital.

Skin Contact: Immediately flush the body and clothes with excess water, preferably using a safety shower. Remove all clothing, including footwear. Continue rinsing with excess water until advised to stop by the POISON CENTER. Transport to a hospital or doctor.

Eye contact: IMMEDIATELY flush the eyes with excess water, holding back the eyelids to ensure complete flushing of the material from the eyes. Continue flushing until advised by the POISON CENTER or a Doctor, or a minimum of 15min. Transport the patient to a doctor or hospital as soon as possible.

Ingestion: DO NOT INDUCE VOMITING. Urgent medical treatment is likely needed; transport to a hospital or doctor.Give water to rinse out the mouth and then provide water slowly in small amounts. DO NOT give fluids to a person showing signs of reduced awareness or fatigue.

Notes to physician: Treat symptomatically. Can cause corneal burns. PRODUCT CONTAINS

HYDROFLUORIC ACID.Systemic effects include renal damage, hypocalcaemia, and cardiac arhythmia.

5. FIRE FIGHTING MEASURES

Hazchem Code: 2X

Suitable extinguishing media: If material is involved in a fire use water fog (or if unavailable fine water spray), alcohol resistant foam, standard foam, dry agent (carbon dioxide, dry chemical powder).

Specific hazards: Non-combustible material.

Fire fighting further advice: Not applicable.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILLS
Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours or dust. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

LARGE SPILLS
Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

Dangerous Goods – Initial Emergency Response Guide No: 37

7. HANDLING AND STORAGE

Handling: Avoid eye contact and skin contact. Avoid inhalation of vapour, mist or aerosols.

Storage: Store 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 locked up. Store in corrosive resistant container with a resistant inner liner. 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.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits:

	TWA		STEL		NOTICES
	ppm	mg/m3	ppm	mg/m3	
Hydrogen chloride	5 Peak limitation	7.5 Peak limitation	-	-	-

As published by Safe Work Australia.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

STEL (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

Biological Limit Values: As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.

Engineering Measures: Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use only in well ventilated areas. Use with local exhaust ventilation or while wearing appropriate respirator.

Personal Protection Equipment: SAFETY SHOES, GLOVES, SAFETY GLASSES.

Wear safety shoes, gloves, safety glasses. Available information suggests that gloves made from should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Hygiene measures: Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and skin contact. Avoid inhalation of vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Clear Liquid
Colour:	Colourless to pale yellow
Odour:	Characteristic pungent odour

Solubility:	Miscible
Specific Gravity (20 °C):	1.14
Vapour Pressure (20 °C):	0.6kPa
Boiling Point/Range (°C):	110
pH:	<1 (5% solution)

(Typical values only - consult specification sheet)
N Av = Not available, N App = Not applicable

10. STABILITY AND REACTIVITY

Chemical stability: Stable under normal ambient conditions, transport, storage, handling, and usage.

Conditions to avoid: AVOID strong oxidisers; releases toxic/corrosive chlorine or fluorine gas.AVOID contact with most metals; releases flammable/explosive hydrogen gas.

Incompatible materials: Incompatible with metals, especially zinc, brass, iron, copper and its alloys.REACTS VIGOROUSLY with alkalis, metals, boron, platnium, and potassium.IN AQUEOUS SOLUTION reacts with sulfuric acid, alkalis, ammonia, many amine compounds, many amide compounds, isocyanates, nitromethane, organic anhydrides and vinyl acetate.CAN attack glass and silicaceous materials including mortar, concrete and common

ceramics.

Hazardous decomposition products: Under extremely high heat, may release hydrogren fluoride, hydrogen chloride, fluorine, chlorine, and hydrogen gases which can be corrosive and flammable.

Hazardous reactions: None known.

11. TOXICOLOGICAL INFORMATION

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:

Acute Effects

Inhalation: Irritation or burns to the airways; may result in oedema, or other pulmonary complications.Hydrogen fluoride absorption can cause renal damage, hypocalcaemia, and cardiac arrhythmia.

Skin contact: Burns may also calls necrosis of the cells below the skin.Hydrogen fluoride absorption can cause renal damage, hypocalcaemia, and cardiac arrhythmia.

Ingestion: Ingestion can cause significant burns to gastro-oesophageal tract.Hydrogen fluoride absorption can cause renal damage, hypocalcaemia, and cardiac arrhythmia.

Eye contact: Eye contact pain can be excruciating, and may require forms of local anaesthetic. Hydrogen fluoride absorption can cause renal damage, hypocalcaemia, and cardiac arrhythmia.

Acute toxicity

Inhalation: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >20 mg/L

LC50 (Rat): 18200ppm for 5min exposure

Skin contact: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >2,000 mg/Kg

Ingestion: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >2,000 mg/Kg

Corrosion/Irritancy: Eye: this material has been classified as a Category 1 Hazard (irreversible effects to eyes). Skin: this material has been classified as a Category 1B Hazard (irreversible effects to skin).

Eye irritant (Rabbit): Corrosive at 0.5% concentration

Sensitisation: Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified as not a skin sensitiser.

Aspiration hazard: This material has been classified as non-hazardous.

Specific target organ toxicity (single exposure): This material has been classified as a Category 3 Hazard. Exposure via inhalation may result in respiratory irritation.

Chronic Toxicity

Mutagenicity: This material has been classified as non-hazardous.

Carcinogenicity: This material has been classified as non-hazardous.

Reproductive toxicity (including via lactation): This material has been classified as non-hazardous.

Specific target organ toxicity (repeat exposure): This material has been classified as non-hazardous.

12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

Acute aquatic hazard: Toxic to aquatic life due to corrosive

96hr EC50 (fish): 51-340 mg/L

Long-term aquatic hazard: This material has been classified as non-hazardous. Non-rapidly or rapidly degradable substance for which there are adequate chronic toxicity data available OR in the absence of chronic toxicity data, Acute toxicity estimate (based on ingredients): >100 mg/L, where the substance is not rapidly degradable and/or BCF < 500 and/or log K_{ow} < 4.

Ecotoxicity: No information available.

Persistence and degradability: No information available.

Bioaccumulative potential: No information available.

Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

14. TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT
Classified as Dangerous Goods by the criteria of the “Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

UN No:	1760
Dangerous Goods Class:	8
Packing Group:	II
Hazchem Code:	2X
Emergency Response Guide No:	37
Proper Shipping Name:	CORROSIVE LIQUID, N.O.S.

Segregation Dangerous Goods: 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 alkalis are incompatible with concentrated strong acids. Note 2: Concentrated strong acids are incompatible with concentrated strong alkalis. Note 3: Acids are incompatible with Dangerous Goods of Class 6 which are cyanides. Exemptions may apply.

MARINE TRANSPORT
Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

UN No:	1760
Dangerous Goods Class:	8
Packing Group:	II
Proper Shipping Name:	CORROSIVE LIQUID, N.O.S.

AIR TRANSPORT
Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

UN No:	1760
Dangerous Goods Class:	8
Packing Group:	II
Proper Shipping Name:	CORROSIVE LIQUID, N.O.S.

15. REGULATORY INFORMATION

This material is not subject to the following international agreements:
Montreal Protocol (Ozone depleting substances)
The Stockholm Convention (Persistent Organic Pollutants)
The Rotterdam Convention (Prior Informed Consent)
Basel Convention (Hazardous Waste)
International Convention for the Prevention of Pollution from Ships (MARPOL)

16. OTHER INFORMATION

Reason for issue: Format change

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If you are an employer it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

Safety Data Sheets are updated frequently. Please ensure you have a current copy.