



AquaGUARD Avert

AGent

AGent SDS: AquaGUARD Avert [2026.01]

Version No: 2026.01

Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Hazard Alert Code: 3

Issue Date: June 2026

Print Date: (auto-fills on print)

AGENT.GHS.AUS.EN.E

SECTION 1 Identification of the substance / mixture and of the company / undertaking

Product Identifier

Product name	AquaGUARD Avert
Chemical Name	1-Hydroxyethylidene-1,1-diphosphonic acid (HEDP) solution (30–60%)
Synonyms	HEDP; etidronic acid; 1-hydroxyethane-1,1-diphosphonic acid; phosphonic stain & scale remover
Proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (1-hydroxyethylidene-1,1-diphosphonic acid)
Chemical formula	$C_2H_8O_7P_2$ (HEDP), 30–60% in water
Other means of identification	AquaGUARD Avert [2026.01]

Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Swimming pool / spa stain and scale remover and metal sequestrant.
Uses advised against	Not for unprotected domestic / consumer use at this concentration. Corrosive. Do NOT mix with chlorine products, hypochlorites or alkalis.

Details of the manufacturer or supplier of the safety data sheet

Registered company name	AGent Sales & Services Pty Ltd
Address	38 May Holman Drive, Bassendean WA 6054, Australia
Telephone	(+61 8) 6270 4500 / 1300 833 844
Website	agentsales.com.au
Email	admin@agentsales.com.au

Emergency telephone number

Association / Organisation	Hazrad (outside 24-hour emergency response provider)
Emergency telephone numbers	08 9418 4200 (24-hour) — answered by Hazrad on AGent's behalf
Other emergency telephone numbers	Poisons Information Centre 131 126 (Australia) / 0800 764 766 (NZ)

SECTION 2 Hazards identification

Classification of the substance or mixture

HAZARDOUS CHEMICAL. DANGEROUS GOODS. Scheduled Poison S6. Classified under the WHS Regulations and the ADG Code — Class 8 Corrosive (PG III).

Poisons Schedule (SUSMP)	Schedule 6 (S6) — SUSMP
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Classification

- Corrosive to Metals Category 1 — H290
- Acute Toxicity (Oral) Category 4 — H302
- Skin Corrosion/Irritation Category 1C — H314

Label elements

Hazard pictogram(s)	
Signal word	DANGER

Hazard statement(s)

- H290 — May be corrosive to metals.
- H302 — Harmful if swallowed.
- H314 — Causes severe skin burns and eye damage.

Supplementary statement(s)

Not Applicable

Precautionary statement(s) Prevention

- P234 — Keep only in original container.
- P260 — Do not breathe mist / vapours / spray.
- P264 — Wash hands thoroughly after handling.
- P270 — Do not eat, drink or smoke when using this product.
- P280 — Wear protective gloves / protective clothing / eye protection / face protection.

Precautionary statement(s) Response

- P301+P330+P331 — IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P310 — Immediately call a POISON CENTRE / doctor.
- P321 — Specific treatment (see First Aid Measures).
- P303+P361+P353 — IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water / shower.
- P363 — Wash contaminated clothing before reuse.
- P390 — Absorb spillage to prevent material damage.
- P304+P340 — IF INHALED: Remove person to fresh air and keep 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.

Precautionary statement(s) Storage

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

Precautionary statement(s) Disposal

- P501 — Dispose of contents/container in accordance with local, state and federal regulations.

Other hazards

Corrosive to metals. Contact with chlorine products / hypochlorites or alkalis should be avoided.

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures.

Mixtures

CAS No.	% [weight]	Name	Classification
2809-21-4	30 – 60	1-Hydroxyethylidene-1,1-diphosphonic acid (HEDP)	Met. Corr. 1 (H290); Acute Tox. 4 (H302); Skin Corr. 1C (H314); Eye Dam. 1 (H318)
7732-18-5	Balance	Water	Not classified

SECTION 4 First aid measures

Description of first aid measures

Eye Contact

Check for and remove any contact lenses. Immediately rinse thoroughly with plenty of running water for at least 15 minutes, keeping eyelids open. Corrosive — risk of irreversible eye injury; seek immediate medical advice.

Skin Contact

Remove contaminated clothing and wash affected areas with soap and running water for at least 15 minutes. Corrosive — causes severe burns; seek medical advice. Launder clothing before reuse.

Inhalation

Move person into fresh air. If not breathing, give artificial respiration. If rapid recovery does not occur, seek medical advice.

Ingestion

Do NOT induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Harmful if swallowed and causes digestive-tract burns — seek immediate medical assistance. Contact the Poisons Information Centre (Australia 131 126; New Zealand 0800 764 766).

Most important symptoms and effects, both acute and delayed

Corrosive. Causes severe skin and eye burns; eye contamination may cause irreversible injury. Harmful if swallowed. Inhalation of mist causes respiratory-tract irritation.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Corrosive injury management. Contact the Poisons Information Centre (Australia 131 126; New Zealand 0800 764 766).

First Aid facilities

Eye wash facilities and a safety shower must be available in any area where this product is handled.

SECTION 5 Firefighting measures

Extinguishing media

Non-combustible aqueous solution. Use extinguishing media appropriate to the surrounding fire — water fog / fine spray, foam, dry chemical powder or carbon dioxide.

Special hazards arising from the substance or mixture

Fire Incompatibility

Reaction with metals may liberate flammable hydrogen. Thermal decomposition yields oxides of phosphorus and carbon.

Advice for firefighters

Fire Fighting

Wear self-contained breathing apparatus (SCBA) and full protective clothing. Stay upwind. Do NOT allow fire-fighting water to reach waterways / drains — store for treatment.

Fire / Explosion Hazard

Corrosive (Class 8). Non-combustible aqueous solution; corrosive / irritating decomposition products on heating.

HAZCHEM Code	2X
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SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See Section 8 for personal protective equipment requirements.

Avoid breathing vapours / mist. Wear full chemical-resistant PPE. Ensure adequate ventilation. Evacuate non-essential personnel; work upwind. See Section 8.

Environmental precautions

Prevent product entering drains or waterways. If contamination of sewers / waterways occurs, advise local emergency services. Observe all regulations.

Methods and material for containment and cleaning up

Minor Spills

Slippery when spilt — clean up immediately. Wear PPE. Contain and prevent run-off. Absorb with inert material (soil, sand). Collect and seal in labelled containers for disposal per Section 13. Wash area down with excess water.

Major Spills

Isolate and ventilate; work upwind. Wear full PPE. Contain (dike), absorb, neutralise cautiously and collect as above. Notify the Environmental Protection Authority if waterways are threatened.

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling

Avoid contact with skin and eyes and breathing vapour / mist. Observe good personal hygiene; wash hands before eating. Use PPE per Section 8.

Other information

Keep containers closed when not in use; check regularly for leaks. Store away from incompatible materials (see Section 10).

Conditions for safe storage, including any incompatibilities

Suitable container

Store in a cool, dry, well-ventilated place, in tightly closed corrosion-resistant containers. Store away from incompatible materials (see Section 10).

Storage incompatibility

Strong oxidisers; chlorine products / hypochlorites; strong alkalis; metals. Store away from incompatible materials (see Section 10).

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

Reference: Safe Work Australia, "Workplace Exposure Limits for Airborne Contaminants" (April 2024) by Safe Work Australia.

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
SWA WEL 2024	HEDP (etidronic acid)	1-Hydroxyethylidene-1,1-diphosphonic acid	Not assigned in SWA WEL 2024	Not assigned in SWA WEL 2024	Not assigned in SWA WEL 2024	No WEL assigned for HEDP. Control mist / vapour to good industrial hygiene practice.

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
HEDP (etidronic acid)	Not established (DOE PAC)	Not established (DOE PAC)	Not established (DOE PAC)
Ingredient	Original IDLH	Revised IDLH	
HEDP (etidronic acid)	Not established (NIOSH)	Not established (NIOSH)	

MATERIAL DATA

No whole-mixture occupational exposure data are available; manage on a per-component basis (above).

Exposure controls

Appropriate engineering controls

Apply the hierarchy of controls (WHS Reg 36). Where elimination or substitution is not reasonably practicable: provide local exhaust ventilation at points of vapour / mist generation; use closed transfer systems where possible; ensure general

ventilation is adequate to keep airborne concentrations below the applicable WEL. Document the risk assessment supporting the chosen control hierarchy.

Individual protection measures, such as personal protective equipment

Eye and face protection

Safety glasses with side shields (AS/NZS 1336 & 1337) as a minimum. Chemical goggles and a face shield (AS/NZS 1336 & 1337) where splash potential exists.

Skin protection

See Hand protection below.

Hands/feet protection

Wear impervious chemical-resistant gloves and protective clothing (splash apron / chemical-impervious garment and rubber boots) (AS 2161 & 2919, AS/NZS 2210). Splash-proof goggles or safety glasses with side shields (AS/NZS 1336 & 1337). Where an inhalation risk exists, use a P1 / P2 particulate respirator (AS/NZS 1715 & 1716).

Body protection

See Other protection below.

Other protection

Long-sleeved chemical-resistant protective clothing and apron (PVC or equivalent)

Respiratory protection

If a risk assessment indicates an inhalation risk exists, wear a half-face or full-face respirator with appropriate filter (selection per AS/NZS 1715; respirator per AS/NZS 1716). Specific cartridge / canister recommendation to be confirmed during respiratory protection risk assessment per AS/NZS 1715.

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Property	Value
Appearance	Liquid — clear, colourless to pale solution
Physical state	Liquid (solution)
Odour	Mild
Odour threshold	Not applicable
pH (as supplied)	< 2 (strongly acidic)
Melting point / freezing point (°C)	< 0 °C
Initial boiling point and boiling range (°C)	> 100 °C
Flash point (°C)	No data available in source SDS (non-combustible aqueous solution)
Evaporation rate	No data available in source SDS
Flammability	Non-flammable (aqueous solution)
Upper Explosive Limit (%)	Not applicable
Lower Explosive Limit (%)	Not applicable
Vapour pressure (kPa)	No data available in source SDS
Solubility in water	Miscible with water
Vapour density (Air = 1)	No data available in source SDS
Relative density (Water = 1)	No data available in source SDS
Partition coefficient n-octanol/water	No data available in source SDS
Auto-ignition temperature (°C)	Not applicable — non-combustible
Decomposition temperature (°C)	No data available in source SDS
Viscosity (cSt)	No data available in source SDS
Molecular weight (g/mol)	206.03 g/mol (HEDP)
Taste	Not applicable — do not taste
Explosive properties	None known
Oxidising properties	None known
Surface Tension (dyn/cm or mN/m)	No data available in source SDS

Volatile Component (% vol)	Water (main volatile fraction)
Gas group	Not applicable
pH as a solution (1%)	Acidic on dilution
VOC g/L	Low — phosphonic acid has very low volatility

SECTION 10 Stability and reactivity

Reactivity	Corrosive liquid. See Section 7 / 10.
Chemical stability	Stable under normal conditions of use, storage and temperature.
Possibility of hazardous reactions	Reaction with metals may liberate flammable hydrogen. Hazardous polymerisation will not occur.
Conditions to avoid	Excessive heat; contact with incompatible materials.
Incompatible materials	See Section 7. Strong oxidisers; chlorine products / hypochlorites; strong alkalis; metals.
Hazardous decomposition products	Oxides of phosphorus and carbon (thermal decomposition).

SECTION 11 Toxicological information

Information on toxicological effects

Inhaled

Mist / vapour may irritate the respiratory tract; low volatility limits inhalation unless misted.

Ingestion

Harmful if swallowed (Acute Tox 4); corrosive — causes digestive-tract burns.

Skin Contact

Corrosive — causes severe burns (H314); severity depends on concentration and contact time.

Eye

Corrosive — causes severe burns; risk of irreversible eye injury.

Chronic

No specific chronic-effect data for the product in the source SDS.

Per-ingredient toxicity

Ingredient	TOXICITY	IRRITATION
HEDP (etidronic acid)	Oral: Acute Tox 4 (harmful if swallowed); no numeric LD50 in source SDS	Corrosive (Skin Corr. 1C / serious eye damage)
Water	Not applicable	Not applicable

Hazard checklist (whole-product classification basis)

Hazard endpoint	Classified	Hazard endpoint	Classified
Acute Toxicity	✓	Carcinogenicity	—
Skin Irritation/Corrosion	✓	Reproductive Toxicity	—
Serious Eye Damage/Irritation	✓	STOT — Single Exposure	—
Respiratory or Skin Sensitisation	—	STOT — Repeated Exposure	—
Mutagenicity	—	Aspiration Hazard	—

Legend: ✓ = Data available to make classification; — = Data either not available or does not fill the criteria for classification.

Information on possible routes of exposure

Absorbed by ingestion, inhalation of mist, eye and skin contact.

Additional Information

RTECS	Not available
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SECTION 12 Ecological information

Toxicity

Ingredient	Endpoint	Test Duration	Species	Value	Source
HEDP (etidronic acid)	EC50 (Daphnia magna)	48 h	Crustacea	527 mg/L (above the 100 mg/L classification cut-off — not aquatic-classified)	AGent legacy V2.3
HEDP (etidronic acid)	No further quantitative data	Not Provided	Not Provided	No fish / algae data in source SDS	AGent legacy V2.3

Environmental precaution: Prevent entry to drains, waterways and soak-aways. Notify the relevant Environmental Protection Authority if waterway contamination occurs.

Persistence and degradability

Ingredient	Persistence: Water / Soil	Persistence: Air
HEDP (etidronic acid)	Phosphonate — poorly biodegradable; adsorbs to sediment and undergoes	Not applicable — low volatility.

	slow abiotic degradation. May contribute phosphorus to receiving waters.	
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Bioaccumulative potential

Ingredient	Bioaccumulation
HEDP (etidronic acid)	Not expected to bioaccumulate (ionic, water-soluble phosphonate).

Mobility in soil

Ingredient	Mobility
HEDP (etidronic acid)	Miscible in water; binds metal ions and adsorbs to sediment / soil minerals.

Other adverse effects

Phosphonate sequestrant — may contribute phosphorus (eutrophication) to receiving waters; acidic on concentrated discharge. Avoid uncontrolled discharge to waterways, drains and sewers.

SECTION 13 Disposal considerations

Waste treatment methods

Product / Packaging disposal

- Recycle wherever possible.
- Ensure waste disposal conforms to all relevant local, state and federal authority waste disposal regulations.
- Do NOT discharge into sewers or waterways.
- Empty containers should be returned via AGent's Closed Loop container return program where applicable.
- Whatever cannot be saved for recovery or recycling should be managed through an approved waste disposal facility.
- Cautiously neutralise before disposal; dispose of in accordance with local, state and federal regulations.

SECTION 14 Transport information

Labels Required	Class 8 (Corrosive) — see ADG Table 3.2.3
Marine Pollutant	No
HAZCHEM Code	2X

Land transport (ADG)

UN number	3265
UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (1-hydroxyethylidene-1,1-diphosphonic acid)
Transport hazard class(es)	Class 8 (Corrosive); Subsidiary Hazard: Not Applicable
Packing group	III
Environmental hazard	Not Applicable
Special precautions for user	ADG Table 3.2.3 (UN 3265 PG III): Special Provision: 223, 274 (shipping description must include the technical name — HEDP), 223; Limited Quantity 5 L; Excepted Quantity E1; Packaging P001 / IBC03 / LP01; Portable tank T7 (TP1, TP28).
ERG / EIP number	ANZ-ERG 2024 Guide 153 (Substances - Toxic and/or Corrosive, Combustible).

Air transport (ICAO-IATA / DGR)

UN number	3265
UN proper shipping name (lowercase)	Corrosive liquid, acidic, organic, n.o.s. (HEDP)
ICAO/IATA Class	Class 8; ERG Code: Not Applicable — AGent does not air-freight
Packing group	III
Environmental hazard	Not Applicable
Special provisions	Not Applicable — AGent does not transport this product by air. Refer to land transport (ADG) above.
Cargo Only Packing Instructions	Not Applicable — AGent does not transport this product by air. Refer to land transport (ADG) above for the applicable classification.
Cargo Only Max Qty/Pack	Not Applicable — AGent does not transport this product by air. Refer to land transport (ADG) above for the applicable classification.
Passenger and Cargo Packing Instructions	Not Applicable — AGent does not transport this product by air. Refer to land transport (ADG) above for the applicable classification.
Passenger and Cargo Max Qty/Pack	Not Applicable — AGent does not transport this product by air. Refer to land transport (ADG) above for the applicable classification.

Sea transport (IMDG-Code / GGVSee)

UN number	3265
UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (1-hydroxyethylidene-1,1-diphosphonic acid)
IMDG Class	Class 8
Packing group	III
Environmental hazard	Not a Marine Pollutant
EMS Number	F-A, S-B
Special provisions	Not Applicable — AGent does not export this product or transport it by sea. Refer to land transport (ADG) above.

Transport in bulk according to MARPOL Annex II and the IBC Code

Not Applicable — AGent does not transport this product in bulk by sea.

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
AquaGUARD Avert	Not Applicable — AGent does not transport this product in bulk by sea.

Transport in bulk in accordance with the IGC Code

Product name	Ship Type
AquaGUARD Avert	Not Applicable — AGent does not transport this product in bulk by sea.

SECTION 15 Regulatory information**Safety, health and environmental regulations / legislation specific for the substance or mixture**

HEDP / ETIDRONIC ACID (CAS 2809-21-4) is found on / assessed against the following regulatory lists:

- Australia Hazardous Chemical Information System (HCIS): Acute Tox. 4 / Eye Dam. 1
- Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP): Schedule 6 (S6)
- Australian Inventory of Industrial Chemicals (AIIC): Listed
- IARC Group classification: Not classified
- Schedule 10 of the model WHS Regulations (prohibited / restricted carcinogens): Not listed
- Schedule 14 of the model WHS Regulations (health monitoring trigger): Not listed

Additional Regulatory Information

Subject to: Work Health and Safety (General) Regulations 2022 (WA); "Workplace Exposure Limits for Airborne Contaminants" (April 2024) by Safe Work Australia; Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code) current edition.

National Inventory Status

Country / Inventory	Listed
Australia (AIIC / AICS)	Yes
Canada (DSL)	Not applicable — AGent does not export this product
Canada (NDSL)	Not applicable — AGent does not export this product
China (IECSC)	Not applicable — AGent does not export this product
Europe (EINECS / ELINCS / NLP)	Not applicable — AGent does not export this product
Japan (ENCS)	Not applicable — AGent does not export this product
Korea (KECI)	Not applicable — AGent does not export this product
New Zealand (NZIoC)	Not applicable — AGent does not export this product
Philippines (PICCS)	Not applicable — AGent does not export this product
USA (TSCA)	Not applicable — AGent does not export this product
Taiwan (TCSI)	Not applicable — AGent does not export this product
Mexico (INSQ)	Not applicable — AGent does not export this product
Vietnam (NCI)	Not applicable — AGent does not export this product
Russia (FBEPH)	Not applicable — AGent does not export this product

Legend: Yes = All CAS declared ingredients are on the inventory; No = One or more CAS listed ingredients are not on the inventory (may be exempt or require registration).

SECTION 16 Other information

Revision Date	June 2026
Initial Date	June 2026 (AGent 2026 format; AquaGUARD Pool & Spa brand)

SDS Version Summary

Version	Date of Update	Sections Updated
2026.01 (AGent 2026 format)	June 2026	Reformatted from legacy V2.3 to AGent 2026 layout (AquaGUARD Pool & Spa brand). §14 ERG to ANZ-ERG 2024 Guide 153; AICS→AIIC. pH set to < 2 and packing group to PG III (Skin Corr 1C). Classification: Met Corr 1 / Acute Tox 4 / Skin Corr 1C (H314 subsumes Eye Dam 1); UN 3265 Class 8 PG III; S6.
V2.3 (legacy AGent format)	Pre-2026	AquaGUARD (AGent Pool & Spa brand). Corr Met 1 / Acute Tox 4 / Skin Corr 1C / Eye Dam 1; Danger; Class 8 corrosive; S6.

Other information

This SDS is intended as a hazard communication tool to assist in workplace Risk Assessment. It is not an Australian Standard or a definitive document.

Definitions and abbreviations

Abbreviation	Definition
ADG	Australian Dangerous Goods Code
AICS / AIIC	Australian Inventory of Industrial Chemicals (formerly AICS)
AUH	Additional / Australian Hazard statements
BCF	Bioconcentration Factor
BEI	Biological Exposure Index
CAS	Chemical Abstracts Service Registry Number
DNEL	Derived No Effect Level
DSEN	Dermal sensitiser (SWA WEL 2024 notation)
EC50	Effect Concentration causing effect in 50% of test population
EMS	IMDG Emergency Schedule
ERG / EIP	Emergency Response Guide / Emergency Information Panel (SAA/SNZ HB76)
ES	Exposure Standard (legacy term — now WEL)
GHS	Globally Harmonised System of Classification and Labelling
HCIS	Hazardous Chemical Information System (Safe Work Australia)
IARC	International Agency for Research on Cancer
IDLH	Immediately Dangerous to Life or Health
LC50	Lethal Concentration causing death in 50% of test population
LD50	Lethal Dose causing death in 50% of test population
LOAEL	Lowest Observed Adverse Effect Level
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration
OEL	Occupational Exposure Limit
OTO	Ototoxic (SWA WEL 2024 notation)
PC-STEL	Permissible Concentration — Short Term Exposure Limit
PC-TWA	Permissible Concentration — Time Weighted Average
PNEC	Predicted No Effect Concentration
RSEN	Respiratory sensitiser (SWA WEL 2024 notation)
SDS	Safety Data Sheet
Sk	Skin notation — absorption through the skin a significant route

STEL	Short Term Exposure Limit (15 min TWA)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TEEL	Temporary Emergency Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weighted Average (8 hr / 40 hr week)
WEL	Workplace Exposure Limit (Safe Work Australia, April 2024)
WHS	Work Health and Safety

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