SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

GHS PRODUCT IDENTIFIER

AQT 719

OTHER MEANS OF IDENTIFICATION

CAS:	Mixture not listed in registry
EC:	Mixture not listed in registry
RTECS:	Mixture not listed in registry
ICSC:	Mixture not listed in registry
GESTIS DATABASE:	Mixture not listed in registry
CHEMICAL FAMILY:	Mixture not identified
SYNONYMS:	None
PROPER SHIPPING NAME:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.
CHEMICAL FORMULA:	Mixture not identified
PRODUCT STOCK CODE/S:	AQT719A(1000Kg)
SDS LINK:	http://aquatradesa.ddns.net/owncloud/index.php/s/qGpmdDydVTWC1el

RECOMMENDED USE	RESTRICTIONS ON USE
AQT 719 is a specially formulated product suitable for cleaning RO membranes and other surfaces. It is used specifically for removing calcium sulphate from membranes and other plant. It will also remove some other deposits and foulants such as iron.	Not for end consumer use. Not for food, drug, or household use.

SUPPLIER'S DETAILS

AQUATRADE WATER TREATMENT CHEMICALS (PTY) LTD

22 Grader Rd, Spartan
Gauteng, South Africa
PO Box 357
Isando, 1600
Tel: +27 11 394 0752
info@aquatradesa.co.za
www.aquatradesa.co.za

SDS Enquiries only
admin@aquatradesa.co.za Tel: +27 11 394 8762

EMERGENCY PHONE NUMBER		
NAME	**TEL**	**HOURS AVAILABLE**
SPECIALIST		
S. Biondi	+27 68 237 2033	Mon. – Fri. 05:00 –20:00 GMT
H. van Niekerk	+27 82 410 5540	Mon. – Fri. 05:00 –20:00 GMT
Spilltech	+27 86 100 0366	24/7
OPERATOR		
SHEQ Coordinator	+27 76 590 9559 +27 87 654 3326	24/7 Mon. – Fri. 06:00 –18:00 GMT

SECTION 2 — HAZARDS IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Acute Toxicity, Oral (Category 4), H302
Skin Corrosion/Irritation (Category 1), H314
Serious Eye damage/Irritation (Category 1), H318
Specific Target Organ Toxicity – Single Exposure (Category 3), H335
Aquatic Toxicity – Acute (Category 1), H400

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS LABEL ELEMENTS

SIGNAL WORD: DANGER

GHS HAZARD CODES

Harmful if swallowed.
Causes severe skin burns and eye damage.
May cause respiratory irritation.
Very toxic to aquatic life.

GHS PRECAUTIONARY CODES

Do not breathe dust/fume/gas/mist/vapours/spray.
Wash hands thoroughly after handling.
Do not eat, drink, or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.
IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
IF INHALED: Remove person to fresh air and keep 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/doctor.
Specific treatment (see IF SWALLOWED, IF ON SKIN, IF INHALED, IF IN EYES on this label).
Rinse mouth.
Wash contaminated clothing before reuse.
Collect spillage.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of contents and container in accordance with local, regional, national, international regulations.

OTHER HAZARDS WHICH DO NOT RESULT IN CLASSIFICATION

This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher.

SECTION 3 — COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE	CAS	EC	MIN %	MAX %	HAZARD NOTES
Nitrogenous compound	CBI				H314: Causes severe skin burns and eye damage. H335: May cause respiratory irritation. H400: Very toxic to aquatic life.
Chelant	CBI				H302: Harmful if swallowed. H318: Causes serious eye damage.

CBI *– Information available to competent authority and or emergency responders.*

SECTION 4 — FIRST-AID MEASURES

DESCRIPTION OF NECESSARY FIRST AID MEASURES

Call 112 or 10177 or your local emergency help number immediately, for emergency assistance. Provide them with information such as the compound taken, quantity and time of ingestion, age, weight, and general health status of affected individual. Carefully remove the individual from the exposure area.

IF INHALED	Move the victim to fresh air or remove source of contamination. Keep person warm and at rest. Treat symptomatically and supportively as and when required.

	Qualified personnel should perform administration of oxygen. Get medical attention immediately.
IF IN CONTACT WITH EYES	Immediately flush the contaminated eyes with gently flowing clean water for 15 to 20 minutes, occasionally lifting the upper and lower lids. Immediately seek medical advice.
IF IN CONTACT WITH SKIN	Move the victim to fresh air and remove all contaminated clothing, shoes, and leather goods. Gently wipe off excess chemical. Wash affected skin areas gently and thoroughly with water and non-abrasive soap. Do not rub the skin. Persons who become sensitized may require specialized medical management. Immediately seek medical advice.
IF INGESTED	Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical attention immediately. Qualified medical personnel should perform administration of oxygen. If the person is alert, rinse mouth thoroughly with water and give person large volumes of water or milk to drink. When vomiting occurs, keep head lower than hips to prevent aspiration.
GENERAL ADVICE	Check the vital functions. **Unconscious**: maintain adequate airway and respiration. **Respiratory arrest**: artificial respiration or oxygen. **Cardiac arrest**: perform resuscitation. Victim conscious with laboured breathing: half-seated. **Victim in shock**: on his back with legs slightly raised. **Vomiting**: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE and DELAYED

IF INHALED	Irritant and burns to respiratory tract and mucous membrane. Inhalation of huge quantities may cause nasal discharge, chest pain and breathing difficulty. Accumulation of fluid in the lungs (pulmonary oedema), symptoms can be delayed for several hours.
IF IN CONTACT WITH EYES	Corrosion of the eye tissue. Permanent eye damage. Causes serious eye damage.
IF IN CONTACT WITH SKIN	Caustic burns/corrosion of the skin. Slow-healing wounds.
IF INGESTED	Harmful to toxic when ingested. Causes digestive tract burns, inflammation of mouth, throat, oesophagus and/or stomach. Ingestion of huge quantities may cause nausea, vomiting, gastrointestinal irritation and/or diarrhoea.

INDICATION OF IMMEDIATE MEDICAL ATTENTION & SPECIAL TREATMENT NEEDED, IF NECESSARY

No specific antidotes are available. Treat symptomatically. If the product has been ingested, inhaled, observe for latent pulmonary oedema.

SECTION 5 — FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA	Extinguish fires with carbon dioxide, dry powder, or alcohol-resistant foam. Water spray can be used for cooling of unaffected stock but avoid water coming in contact with the product.
EXTINGUISHING MEDIA NOT SUITABLE	None. Use as little water as possible. Use spray or fog. Solid stream may cause spreading.
SPECIFIC HAZARDS ARISING FROM THE CHEMICAL	**Fire and explosion hazard**: Product burns with difficulty.

	Hazardous products of combustion: Thermal decomposition products may release toxic and/or hazardous fumes and gases, including nitrogen oxides, carbon oxides and ammonia.
SPECIAL PROTECTIVE ACTIONS FOR FIRE-FIGHTERS incl. PPE	**Firefighting Procedure**: Remove spectators from surrounding area. Isolate the fire area and evacuate downwind. Use a recommended extinguishing agent for the type of surrounding fire. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal. Avoid inhaling hazardous vapours and fumes from burning materials. Keep upwind. Remove container from fire area if possible and without risk. Water can be used to cool unaffected containers but must be contained for later disposal. Dike fire control water for later disposal. Do not scatter the material. Avoid pollution of waterways. Do not use high volume water jet, due to contamination risk. Contain water used for firefighting for later disposal. Avoid the accumulation of polluted run-off from the site. **Personal protective equipment**: Fire fighters and others that may be exposed should wear self-contained breathing apparatus pressure-demand, SANS 50137:2011 (approved or equivalent) and full protective gear. Do not breathe corrosive fumes from burning material. Keep upwind.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PPE & EMERGENCY PROCEDURES	**COMMUNICATION**: Communicate the hazard immediately regardless of the severity. Other staff working in the area and those in supervisory roles need to be notified. If warranted, evacuate the area, and follow emergency procedures. In the case of this, communicate what spilt and how much of it to the dispatcher. This is so that appropriate action can be taken by first responders quickly after their arrival on site. **CONTROL**: Once the spill has been communicated to the appropriate parties, control it. Take measures to stop or reduce the impact of the spill. This involves closing valves and putting a tipped over container the right way up, for example. Depending on the chemical nature and severity of the spill, this step may need PPE. For example, respiratory protection. If required, shut down heat sources or any possible sources of ignition. To diffuse fumes, increase ventilation to the area of concern. Unless the fumes are a hazard themselves, in which case isolate the area. This can be done by shutting vents, windows, and doors (after evacuation). **CONTAIN**: By now the immediate situation would have been taken care of. So, now it's time to contain the spill. This step involves ensuring the spill doesn't contaminate neighbouring areas. Prevent the spill from spreading to drains or flowing into environmentally sensitive areas. Depending on what spilt, you can contain it by using absorbent mats or neutralisers. Spread them around the boundary of the spill and then work them into the centre of it. Some situations will need a dike to be built or a spill sock to be used in the blocking or directing of the spillage. If during the process you need to leave the area of concern, block access to the spillage. Do this with caution tape or some other barrier so that other people in the workplace don't come into contact with it.

	CLEAN-UP: The final step in the 4-part spill response process is the clean-up. Dispose of any absorbent mats and other neutralising materials. Rubbish bags or pails/drums can be used for this, depending on the size of the spill. Sometimes the nature of the spill will mean that any brooms, brushes, pans, or other equipment used to clean-up to be disposed of too. If it is a hazardous material that is being disposed of, do so in line with the local environmental law and regulation. This includes labelling before disposal. Wash any affected surfaces with the correct solution for the spill at hand. This could be, for example, detergent, water, or bleach. Hands, clothes, and any other areas that have been in contact with the spilled material may also need decontamination.
ENVIRONMENTAL PRECAUTIONS	Do not allow entering drains or watercourses. Spillage or uncontrolled discharges into water courses (or public waters) to be reported immediately to the Police and to the Department of Water/Environmental Affairs. Report spills more than the NEMA reporting quantity to the Department of Environment, Forestry and Fisheries Tel: +27 86 111 2468 or E-mail: callcentre@environment.gov.za.
METHODS & MATERIALS FOR CONTAIMENT & CLEANING UP	**Occupational spill**: Do not touch-spilled material; stop leak if you can do it without risk. Keep out unprotected persons and animals. **For spills**: Soak up with absorptive material such as damp earth or sand or other suitable non-combustible absorbent material. Place the material into a clean, dry container and cover for subsequent disposal. Label containers with its content and dispose it in accordance with local regulations. In situations where product meets water, contain contaminated water for later disposal. Prevent material from spreading by damming in with absorptive material. Do not flush spilled material into drains. Keep spectators away and upwind. Open burning or dumping of this material is prohibited. Do not get water inside containers.

SECTION 7 — HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING	Do not use near source of sparks or open flame. Harmful in contact with skin and if swallowed. Irritating to eyes and skin. Avoid contact with eyes and skin, and inhalation of spray and vapour. Use with adequate ventilation. Do not apply directly to areas where surface water is present, or to intertidal areas below the mean high-water mark. Water used to clean equipment must be disposed of correctly to avoid contamination. **Hygiene measures:** Wash hands before eating, drinking, chewing gum, smoking, or using the toilet. Operators should change and wash clothing daily. Remove clothing immediately if the product gets inside. Then wash skin thoroughly using a non-abrasive soap and put-on clean clothing.
CONDITIONS FOR SAFE STORAGE	Keep out of reach of unauthorised persons, children, and animals. Store in its original labelled container in isolated, dry, cool, and well-ventilated area. Not to be stored next to foodstuffs and water supplies. Keep away from incompatible substances. Local regulations should be complied with. **Prohibitions on mixed storage:** Keep substance away from: combustible materials. strong acids. metals. **Storage area:** Store in a dry area. Keep container in a well-ventilated place. Keep locked up. Protect against frost. Provide for a tub to collect spills. Unauthorized persons are not admitted. Meet the legal requirements.

Special rules on packaging
Special Requirements: hermetical. dry. clean. correctly labelled. meet the legal requirements. Secure fragile packaging's in solid containers.

UN Packaging Codes			
Stock Code	**Pack Size**	**Make & Category**	**UN Code**
AQT719C	1 000 Kg	Plastic Composite IBC	UN31HA1/Y

Shelf Life: 12 Months. - From the data on storage duration in this safety data sheet no agreed statement regarding the warrantee of application properties can be deduced.

INCOMPATIBILTIES

Conditions to avoid: Heat, Direct Sunlight**.**

Substances to avoid: Strong Oxidizing agents.

SANS 10263-0 WAREHOUSING

8.4.3.2 Where flammable or **corrosive** substances are stored, the floor shall slope away from the storage area (primary collection area) to a secondary catch basin or sump of capacity at least 10 % of the total available storage volume of the fire section concerned. The secondary catch basin shall be within the fire section and shall be such that it can be well ventilated. Care shall be taken in the design of such areas to prevent contamination of the soil or ground water.

9.7.2 Every type of storage area inside a warehouse shall be clearly demarcated, for example separate storage areas for poisons, flammables and **corrosives** shall display the relevant hazard class diamond (see table 1). The dimensions of the hazard class diamonds shall be at least 250 mm x 250 mm.

12.8.5 Storage of flammable liquids of class 3, toxic substances of division 6.1 and **corrosives** of class 8.

Nitro-methane class 3, UN No. 1261, shall be separated from substances of class 6.1, and cyanides of division 6.1 shall be separated from acids of class 8. Concentrated acids and bases shall be segregated by at least 1 m. Packaged flammable liquids of class 3, toxic substances of division 6.1 and corrosives of class 8 that are of category 3 can be stored in the same area, provided that.

a) they are kept above floor level, and
b) liquid dangerous goods of one class are not stored above dangerous goods of another class.

12.8.8.3 Toxic and infectious substances (see class 6 in SANS 10228) can contaminate firefighting water in the event of a fire, therefore:

a) Toxic and infectious substances shall be separated from other flammable products and aerosols.
b) Toxic and infectious substances shall be segregated from oxidizing substances, organic peroxides, and **corrosives**.
c) Flammable toxic and infectious substances shall be separated from non-flammable toxic and infectious substances (see 12.8.8.1).

12.8.8.4 Corrosives (see class 8 in SANS 10228) that leak or spill from their packaging can cause serious damage to other packages, with potentially hazardous consequences.

Corrosives shall be segregated from toxic substances, infectious substances, aerosols, flammables, oxidizing substances, and organic peroxides.

	The provisions of above apply to the storage of the following quantities of dangerous goods. **CORROSIVES (ACIDS AND BASES CLASS 8** Category 1 > 50 Kg Category 2 > 200 Kg Category 3 > 1 000 Kg

SECTION 8 — EXPOSURE CONTROLS AND PERSONAL PROTECTION

CONTROL PARAMETERS

OCCUPATIONAL EXPOSURE LIMITS (OEL)	**SOUTH AFRICA: HCA REG, 2021:** **Nitrogenous Compound** OEL 8-hr TWA 50 ppm, OEL-STEL/C 70 ppm OEL eight- hour TWA 10 mg/m3 OEL eight- hour TWA 50ppm; OEL-STEL/C 70 ppm OEL-STEL/C 4 ppm **INTERNATIONAL:** **Nitrogenous Compound** TWA OEL-RL 25 ppm 25, TWA OEL-RL 17 mg/m³, Short Term OEL-RL 35 ppm, Short Term OEL-RL 24 mg/m³ Short Term OEL-RL 5 ppm, Short Term OEL-RL 7 mg/m³" **Chelant** MAK: 2.0 [mg/m3], inhalable fraction **ICSC**: TLV (inhalable fraction): 2 mg/m3; peak limitation category: I(2); pregnancy risk group: C; TWA OEL-RL 10 mg/m³, Short Term OEL-RL 20 mg/m³ **OSHA**: Permissible Exposure Limit (PEL) 15mg/m3 total dust, 5mg/m3 respirable fraction for nuisance dust. **ACGITI**: Threshold Limit Value (TLV) 10mg/m3 total dust containing no asbestos and <1% crystalline silica for Particulates Not Otherwise Classified (PNOC) **ICSC**: 14 mg/m3, 20 ppm; peak limitation category: I(2); pregnancy risk group: C **ICSC**: ERPG-1: 25 ppm (ammonia) - one hour exposure limit: 1 = mild transient health effects or objectionable odour **ICSC**: ERPG-2: 200 ppm - one hour exposure limit: 2 = impaired ability to take protective action **ICSC**: 3: 1,000 ppm - one hour exposure limit: 3 = life threatening health effects
ADDITIONAL EXPOSURE LIMITS UNDER THE CONDITIONS OF USE	Contains no substances with biological exposure indices.
DNEL/DMEL AND PNEC-VALUES	Not available.

APPROPIATE ENGINEERING CONTROLS

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation.

INDIVIDUAL PROTECTION MEASURES

EYE PROTECTION		Wear safety goggles. Use equipment for eye protection tested and approved under appropriate government standards such as SANS 50166:2018. Contact lenses should not be worn as they may contribute to severe eye injury.

FACE PROTECTION		If the face is at risk a protective shield must also be worn tested and approved under appropriate government standards such as SANS 1400:2010.
HAND PROTECTION		Use protective gloves. The glove material must be sufficiently impermeable and resistant to the substance. Check the tightness before wear. Gloves should be well cleaned before being removed, then stored in a well-ventilated location. Pay attention to skin care. Skin protection cremes do not protect sufficiently against the substance. Textile or leather gloves are completely unsuitable. Currently there is no information available regarding suitable glove materials. Ask the manufacturer for suitable materials. Suggested material: Neoprene, Nitrile, Rubber or PVC Gloves If used in solution, or mixed with other substances, and under conditions which differ from SANS 416:2021 or SANS 1228:2012, contact the supplier of the CE approved gloves.
BODY PROTECTION		Complete suit protecting against chemicals tested and approved under appropriate government standards such as SANS 54325:2019. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
RESPIRATORY PROTECTION		Where risk assessment shows air-purifying respirators are appropriate use an elastomeric half-face particle respirator with type ABEK1P3, SANS 50141:2003 combination respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use an elastomeric full-face respirator. Use respirators and components tested and approved under appropriate government standards such as SANS 50136:1998, SANS 50137:2011, SANS 50140:1998. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacture.

NOTE: The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors. Recommendations above is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Occupational hygiene: Foods, beverages and other articles of consumption must not be consumed at the work areas. Suitable areas are to be designated for these purposes. Avoid contact with skin. Avoid contact with eyes. Avoid inhalation of dust. Avoid contact with clothing. Contaminated clothes must be exchanged and cleaned carefully. Provide washrooms with showers and if possible, rooms with separate storage for street clothing and work clothing. The skin must be washed with soap and water before breaks and at the end of work. Apply fatty skin-care products after washing. Take care of personal hygiene.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE (PHYSICAL STATE, COLOUR ETC):	Colourless to Yellow Liquid
ODOUR:	Ammonia Odour
ODOUR THRESHOLD:	No additional data available.
pH:	8 – 9.5
MELTING/FREEZING POINT:	No additional data available.
INITIAL BOILING POINT AND BOILING RANGE:	No additional data available.
FLASH POINT:	Do not flash.
EVAPORATION RATE:	No additional data available.

FLAMMABILITY (SOLID, GAS):	Not flammable.
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:	Not explosive
VAPOUR PRESSURE:	No additional data available.
VAPOUR DENSITY:	No additional data available.
RELATIVE DENSITY:	1.18 – 1.21
SOLUBILITY(IES):	Miscible in water
PARTITION COEFFICIENT: N-OCTANOL/WATER:	No additional data available.
AUTO-IGNITION TEMPERATURE:	No additional data available.
DECOMPOSITION TEMPERATURE:	No additional data available.
VISCOSITY:	No additional data available.
OXIDIZING PROPERTIES:	No additional data available.

NOTE: The physical data presented above are typical values and should not be construed as a specification

SECTION 10 — STABILITY AND REACTIVITY

REACTIVITY	No hazardous reactions if stored and handled as prescribed/indicated. **Corrosion to metals**: Corrosive effect on metals. **Remarks**: Forms no flammable gases in the presence of water.
CHEMICAL STABILTY	The product is stable if stored and handled as prescribed/indicated. This product is stable at ambient temperatures and atmospheric pressures. It is not self-reactive and is not sensitive to physical impact.
POSSIBILTY of HAZARDOUS REACTIONS	Aqueous solution in contact with aluminium evolves hydrogen. Hazardous polymerisation will not occur under normal conditions.
CONDITIONS TO AVOID	Avoid high temperatures. Poor ventilation.
INCOMPATIBLE MATERIALS	This product is incompatible with strong oxidizers. Aqueous solution in contact with aluminium evolves hydrogen. Avoid contact with aluminium, zinc, and other metals. **Corrosivity**: Corrosive to stainless steel, zinc, and aluminium.
HAZARDOUS DECOMPOSITION PRODUCTS	Under fire conditions the product may support combustion and decomposes to give off carbon oxides fumes (CO, CO2), nitrogen oxides, ammonia, and water vapour.

SECTION 11 — TOXICOLOGICAL INFORMATION

TOXICOLOGICAL (HEALTH) EFFECTS

ACUTE TOXICITY	Harmful if swallowed.
SKIN CORROSION/IRRITATION	Cause serious skin damage.
SERIOUS EYE DAMAGE/EYE IRRITATION	Cause serious eye damage.
RESPIRATORY OR SKIN SENSITIZATION	Based on available data, the classification criteria are not met.
GERM CELL MUTAGENICITY	Based on available data, the classification criteria are not met.
CARCINOGENICITY	Based on available data, the classification criteria are not met.
REPRODUCTIVE TOXICITY	Based on available data, the classification criteria are not met.
SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE	May cause respiratory irritation.
SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE	Based on available data, the classification criteria are not met.

ASPIRATION HAZARD	Based on available data, the classification criteria are not met.

LIKELY SOURCES OF EXPOSURE

INHALATION	EYES	SKIN	INGESTION
Rare	Unlikely	Likely	Rare
Possible exposure during mixing.	Possible exposure during mixing.	Possible exposure during mixing.	Possible exposure in case of unhygienic practices.

SYMPTOMS RELATED TO PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS

Refer toxicological (health) effects above.

DELAYED/IMMEDIATE/CHRONIC EFFECTS FROM LONG/SHORT TERM EXPOSURE

On continuous/repeated exposure/contact: Dry skin. Skin rash/inflammation. Possible inflammation of the respiratory tract.

NUMERICAL MEASURES OF TOXICITY (SUCH AS ATE)

Calculation based on GHS additivity formula.

TEST	ROUTE	SPECIES	VALUE	EFFECTS
LD50	Oral	Rat	132.55 mg/kg bw	Refer above section 11.1
LC50	Inhalation	No data available		
LD50	Dermal	No data available		

INTERACTIVE EFFECTS

No additional information available.

WHERE SPECIFIC CHEMICAL DATA IS NOT AVAILABLE

No additional information available.

MIXTURES

No additional information available.

MIXTURES VS INGREDIENTS INFORMATION

No additional information available.

OTHER INFORMATION

No additional information available.

SECTION 12 — ECOLOGICAL INFORMATION

TOXICITY

Calculation based on GHS additivity formula.

TEST	SPECIES	VALUE
48Hr EC50	Fish	> 100 mg/L
48Hr EC50	Crustacea	> 100 mg/L
48Hr EC50	Algea	> 100 mg/L
48Hr EC50	Micro-Organism	> 100 mg/L

PERSISTANCE AND DEGRADEBILITY

OECD Test Guideline 301 (A-F)	
BOD_5	No additional data available.
COD	No additional data available.

BIOACCUMULATIVE POTENTIAL

PARTITION COEFFICIENT: N-OCTANOL/WATER	
LOG-K_{OW}	No additional data available.
BIOCONCENTRATION FACTOR	
BCF	No additional data available.

MOBILITY IN SOIL

No additional data available.

OTHER ADVERSE EFFECTS

This product is toxic to aquatic life. DO NOT discharge effluent containing this product into bodies of water unless in accordance with international, national and/or provincial law.

SECTION 13 — DISPOSAL CONSIDERATIONS

WASTE DISPOSAL RECOMMENDATION

Dispose of waste and container in accordance with local and/or national regulations. Hazardous waste shall not be mixed with other waste. Different types of hazardous waste shall not be mixed if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport, or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle/reuse. Remove for physico-chemical/biological treatment. Avoid discharge into drains or the environment.

ECOLOGY – WASTE MATERIAL

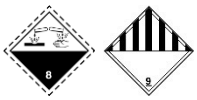
DO NOT release to the environment.

EMPTY CONTAINER

Avoid reuse of empty container for other storage. Consider refilling or recycling. Rinse/decontaminate thoroughly before re-filling, discarding in waste or return to supplier. Puncture container prior to disposal as waste.

Stock Code	Material	Recycling Class
AQT719A	HDPE Inner Receptacle	02 PE-HD
	Steel Cage	40 FE

SECTION 14 — TRANSPORT INFORMATION

TRANSPORTATION CLASSIFICATION	ADR/RID	ADN(R)	IMDG	ICAO/IATA	
UN NUMBER	3267				
PROPER SHIPPING NAME	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.				
HAZARD CLASS(ES)	8.2 				
PACKING GROUP	III				
MARINE POLLUTANT	No				
EMERGENCY RESPONSE	**ERG 2020** 153	-	**EMS GUIDE** F-A; S-A	**ERG DRILL GUIDE** 8L - Corrosive, Other	
EXEMPT / QUANTITY LIMITATIONS KG	**Exempt / Factor**	**Passenger rail**	N/A	**Passenger aircraft**	**Cargo aircraft**
	200 / 5	5 L		5 L	60 L
P, B, L & O	None	N/A	N/A	N/A	

Provisions SANS 10231				
Vessel Stowage	**10A -** A			
	10B – 40, 52			
NEMA Reportable Quantity	500 Kg AMMONIUM SOLUTION: 1336-21-6			

SPECIAL INSTRUCTIONS FOR USER

Vessel Stowage:
Stowage category “A” means the material may be stowed “on deck” or “under deck” on a cargo vessel or on a passenger vessel.
Stowage category “40” means Stow “clear of living quarters”.
Stowage category “52” means Stow “separated from” acids.

Special precautions for user:
DO NOT load with Class 1 and 7.
Keep aluminium gas cylinders apart from caustic bases.
Concentrated acids and bases must be kept at least 1 metre apart.
May be loaded together with all other classes if kept 1 metre apart.
Goods of different classes must be segregated by an air space of at least 100mm or by an approved segregation device or non-dangerous goods.

SANS 10231 Provisions:
None.

TRANSPORT IN BULK ACCORDING TO ANNEX II of MARPOL 73/78 and THE IBC CODE

Not applicable.

SECTION 15 — REGULATORY INFORMATION

SA NATIONAL LEGISLATION

Hazardous Substances Act 15 of 1973 and Regulations.
Occupational Health and Safety Act 85 of 1993 and Regulations.
National Environmental Management Act 107 of 1998 and Regulations.

SA NATIONAL STANDARDS

SANS 10228: 2006: Identification and Classification of Dangerous Goods for Transport by Road and Rail.
SANS 10231: 2018: Transport of Dangerous Goods - Operational Requirements for Road Vehicles.
SANS 10234: 2019: Globally Harmonized System of Classification and Labelling of Chemicals (GHS).
SANS 11014: 2010: Safety Data Sheets for Chemical Products.

REACH Regulation (EC) No 1907/2006

This product contains only components that have been either pre-registered, registered, are exempt from registration, are regarded as registered or are not subject to registration according to Regulation (EC) No. 1907/2006 (REACH)., The indications of the REACH registration status are provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. It is the buyer´s/user´s responsibility to ensure that his/her understanding of the regulatory status of this product is correct.

Seveso III: Directive 2012/18/EU

Listed in Regulation: Not applicable.

Chemical safety assessment

Not assessed.

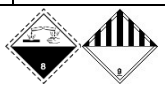
SECTION 16 — OTHER INFORMATION

FULL TEXT OF H & P - STATEMENTS REFERRED TO UNDER SECTION 2

HAZARD STATEMENTS	PRECAUTIONARY STATEMENTS
H302: Harmful if swallowed. H314: Causes severe skin burns and eye damage. H335: May cause respiratory irritation. H400: Very toxic to aquatic life.	P260: Do not breathe mist/vapours/spray. P264: Wash exposed areas thoroughly after handling. P270: Do not eat, drink, or smoke when using this product. P271: Use only outdoors or in a well-ventilated area. P273: Avoid release to the environment. P280: Wear protective gloves/protective clothing/eye protection/face protection. P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor. P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. 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. P321: Specific treatment (see IF SWALLOWED, IF ON SKIN, IF INHALED, IF IN EYES on this label). P363: Wash contaminated clothing before reuse. P391: Collect spillage. P403+P233: Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up. P501: Dispose of contents and container in accordance with local, regional, national, international regulations to licenced hazardous waste manager.

LABELLING SANS 10234:2019
SIGNAL WORD: DANGER

PICTOGRAMS

PHYSICAL & HEALTH HAZARD		ENVIRONMENTAL HAZARD		TRANSPORT	
GHS05 GHS07	Corrosive Substance Health Hazard Substance	GHS09	Environmental Toxic Substance	Class 8.2 Class 9	Corrosive Alkaline Miscellaneous
					

LEGEND TO ABBREVIATIONS & ACRONYMS

ABEK: Organic gases and vapours (BP>65ºC); Inorganic gases and vapours; Sulphur dioxide and other acid gases and vapours; Ammonia and organic ammonia derivatives
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
BCF: Bioconcentration Factor
BOD5: Biological Oxygen Demand in 5
CAS: Chemical Abstracts Service
CBI: Confidential Business Information
CEN: European Committee for Standardization
COD: Chemical Oxygen Demand

DMEL: Derived Minimal Effect Level
DNEL: Derived No Effect Level
EC: European Commission
EC50: Half Maximal Effective Concentration
EMS: Emergency Medical Services
ERG: Emergency Response Guidelines
EU: European Union
GHS: Globally Harmonized System
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
ICSC: International Chemical Safety Cards
IMDG: International Maritime Dangerous Goods
LC50: Lethal Concentration 50 (concentration in water having 50% chance of causing death to aquatic life)
LD50: Lethal Dose 50 (median concentration of a toxicant that will kill 50% of the test animals within a designated period)
LOG-KOW: Logarithm - Octanol - Water Partition Coefficient
NIOSH: National Institute for Occupational Safety and Health (US CDC)
NTP: National Toxicology Program
OEL: Occupational Exposure Limit
OSHA: Occupational Safety and Health Administration
P, B, L & O: Packaging, Bulk Transport, Loading Operation & Transport Operation
PBT: Persistent, Bio accumulative, and Toxic
PNEC: Predicted No-Effect Concentration
PPE: Personal Protection Equipment
RID: European Agreements Concerning the International Carriage of Dangerous Goods by Rail
RTECS: Registry of Toxic Effects of Chemical Substances
SANS: South African National Standard
vPvB: Very Persistent Very Bio Accumulative

KEY LITERATURE REFERENCES AND SOURCES

Source	Hyperlink
GESTIS DATABASE	CBI
ECHA – European Chemical Agency	CBI
PUBCHEM DATA	CBI
ICSC	CBI
CAMEO CHEMICALS	CBI
USCG CHRIS Code	CBI
RTK Hazardous Substance Fact Sheet	CBI
NIOSH POCKET GUIDE	CBI
RTECS - NIOSH"	CBI
USA EPA COMPTOX	CBI

CBI *– Information available to competent authority and or emergency responders.*

TRAINING ADVICE
Ensure SDS is always available to users. Provide adequate information, instruction, and training for operators.

COMPILED BY: Aquatrade Water Treatment Chemicals (Pty) Ltd

ISSUE DATE	VERSION NUMBER	REVISION	SUPERSEDE DATE
28 November 2023	1	3	15 October 2022
15 October 2022	1	2	01 March 2021
01 March 2021	1	1	26 July 2018
26 July 2018	0	0	Original

IMPORTANT MANUFACTURER/SUPPLIER DISCLAIMER:
This information is given without a warranty or guarantee. No suggestions for use are intended or shall be construed as a recommendation to infringe any existing patents or violate any national or local laws. Safe handling and use are the responsibility of the customer. Read the label before using this product. This information is true and accurate to the best of our knowledge.