



1 Identification

GHS Product Identifier

AQT 179

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
Chemical Family:	Mixture
Synonyms:	None
Proper Shipping Name:	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.
Chemical Formula:	Mixture

Recommended use of the chemical and restriction on use

AQT 179 is a broad spectrum oxidising biocide for use in systems where bacteria and biofilm are expected to be present. It provides micro-organism control and clean systems. Not for food, drug or household use.

Supplier's details

AQUATRADE WATER TREATMENT CHEMICALS (PTY) LTD

4A Spanner Road	PO Box 357
Spartan, Kempton Park	Isando
Gauteng, South Africa	Gauteng, South Africa
1619	1600
www.aquatradesa.co.za	Tel: +27 11 394 0752
sheq@aquatradesa.co.za	Tel: +27 87 654 3326 (SDS Enquiries)

Emergency phone number

E le Sar: +27 82 921 0643 (Available Mon - Fri, GMT 5:00 to 20:00)
Spilltech: +27 861 000 366 (Available 24/7)

2 Hazard(s) identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Corrosive to Metals (Category 1), H290
Acute Toxicity, Oral (Category 5), H303
Skin Corrosion/Irritation (Category 1B), H314
Eye Damage/Irritation (Category 1), H318
Specific target organ toxicity - Single Exposure - Respiratory system (Category 3), H335
Reproductive Toxicity (Category 1B), H360
Acute Aquatic Toxicity (Category 3), H402

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

GHS label elements

Danger



May be corrosive to metals

May be harmful if swallowed

Causes severe skin burns and eye damage

Causes serious eye damage

May cause respiratory irritation

May damage fertility or the unborn child

Harmful to aquatic life

Keep only in original container.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

IF INHALED: Remove victim to fresh air and Keep at rest in a position 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 or doctor/physician.

Wash contaminated clothing before reuse.

Absorb spillage to prevent material damage.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Store in corrosive resistant container with a resistant inner liner.

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

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Do not breathe dust/fume/gas/mist/vapours/spray. Wash thoroughly after handling.

Other hazards which do not result in classification

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

3 Composition/information on ingredients

Description	CAS Number	EINECS Number	%	Note
Confidential Business Information			0	Information available to Emergency Responders on Tel: +27 82 921 0643

4 First-aid measures

Description of necessary first-aid measures

Eyes

Immediately flush with cold water for at least 15 minutes. Then get immediate medical attention.

Skin

Remove contaminated clothing. Wash skin with plenty of water. If irritation persists, get medical attention.

Ingestion

Drink large amounts of water. **DO NOT** induce vomiting. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. Get medical attention immediately. Treat symptomatically.

Inhalation

Remove to fresh air. Call a physician immediately.

Most important symptoms/effects, acute and delayed

Skin

Causes severe skin burns and eye damage.

Eyes

Cause serious eye damage and skin burns.

Indication of immediate medical attention and special treatment needed, if necessary

Treatment should be directed at preventing absorption, administering to symptoms (if they occur), and providing supportive therapy.

5 Fire-fighting measures

Suitable extinguishing media

In case of fire caused by reaction of the product with other substances call the fire department. Flood with large amounts of water.

DO NOT use chemical fire extinguishers.

Specific hazards arising from the chemical

Chlorine gas.

Explosion Hazards

Explosive mixtures may be formed with easily oxidisable substances such as organic materials.

Special protective actions for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel

DO NOT breathe vapours, mist. **Avoid** substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders

Protective equipment see section 8.

Environmental precautions

Avoid release to the environment. Prevent product from entering open water sources and municipal drains.

Methods and materials for containment and cleaning up

Small spill

Isolate the spilled material with sand or other inert material. Dilute with plenty of water and rinse to drain. Rinse contaminated area.

Large spill

Isolate the area of the spill. Prevent flames and sparks. Prevent contact with organic material using sand or other inert material. Recover as much as possible into suitable containers. Rinse contaminated area to drain system.

7 Handling and storage

Precautions for safe handling

DO NOT mix with other chemicals. Prevent contact with skin and eyes.

Conditions for safe storage, including any incompatibilities

Keep cool. Store in accordance with local/regional/national/international regulations. Store in a dry place. Store in original

closed container. Store in a well-ventilated place. Store away from 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 segregated from non-flammable toxic and infectious substances.

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

8 Exposure controls/personal protection

Control parameters

Occupational exposure limits

Not listed

Additional exposure limits under the conditions of use

Not available.

DNEL/DMEL and PNEC-Values

Not available.

Appropriate engineering controls

Avoid spraying the material. Supply safety shower and eyewash in immediate vicinity of exposure area. **Avoid** contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Individual protection measures

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 below 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.



Eye/face protection

Face shield and safety glasses or safety goggles. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU). Contact lenses should not be worn; they may contribute to severe eye injury.

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

For nuisance protection use a type FFP1 EN 149:2001 particle respirator as a backup to engineering controls.

9 Physical and chemical properties

Physical and chemical properties

Appearance (physical state, colour etc):	Clear colourless to slightly yellow liquid
Odour:	Chlorine odour
Odour threshold:	No test data available
pH:	> 12.5
Melting/Freezing Point:	No test data available
Initial boiling point and boiling range:	No test data available
Flash point:	Do not flash
Evaporation rate:	No test data available
Flammability (solid, gas):	Not flammable
Upper/lower flammability or explosive limits:	Not flammable or explosive
Vapour pressure:	No test data available
Vapour density:	No test data available

Relative density:	Approx. 1.2
Solubility(ies):	Miscible in water
Partition coefficient: n-octanol/water:	No test data available
Auto-ignition temperature:	No test data available
Decomposition temperature:	No test data available
Viscosity:	No test data available

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

10 Stability and reactivity

Reactivity

No known reactivity profiles.

Chemical stability

This product is stable under normal conditions of storage, handling and transport.

Possibility of hazardous reactions

Hazardous polymerisation will not occur under normal conditions.

Conditions to avoid

High temperature. Poor ventilation.

Incompatible materials

Avoid contact with organic materials and reducing agents. **Avoid** contact with all other chemicals.

Corrosivity

Corrosive to stainless steel, zinc and aluminium.

Hazardous decomposition products

If some impurities are added to the product they will speed up the product decomposition process. Should this happen it will be evidenced by swelling of the drums. This product should therefore be stored and used on a first in first out basis and should never be mixed with any other chemicals.

11 Toxicological information

Toxicological (health) effects

Acute Toxicity Oral

Oral LD₅₀ - 3 616.40 mg/kg. Category 5. No test data available on toxicity.

Acute Toxicity Dermal/Inhalation

Not classified. Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/irritation

Cause serious eye damage and skin burns.

Germ cell mutagenicity

Not classified. Based on available data, the classification criteria are not met.

Carcinogenicity

Not classified. Based on available data, the classification criteria are not met.

Reproductive toxicity

Not classified. Based on available data, the classification criteria are not met.

Specific target organ toxicity – single exposure

Category 3 STOT-SE. Irritation if the respiratory tract. No additional data available.

Specific target organ toxicity – repeated exposure

Not classified. Based on available data, the classification criteria are not met.

Aspiration hazard

Not classified. Not an aerosol/mist.

Information on the likely routes of exposure

Skin and eye contact - YES (Vapours/Mist)

Inhalation - YES (Vapours/Mist)

Ingestion - YES (Unhygienic practices)

Symptoms related to the physical, chemical and toxicological characteristics

No additional data available.

Delayed and immediate effects and also chronic effects from short and long term exposure

No additional data available.

Numerical measures of toxicity (such as acute toxicity estimates)

<i>Acute toxicity:</i>		<i>Category:</i>
LD ₅₀ Oral	3 616.40 mg/kg	5
LD ₅₀ Dermal	> 5 000 mg/kg	Not classifiable
LC ₅₀ Inhalation	No data	

Interactive effects

No additional data available.

Where specific chemical data are not available

No additional data available.

Mixtures

No additional data available.

Mixture versus ingredient information

No additional data available.

Other information

No additional data available.

12 Ecological information

Toxicity

<i>Acute toxicity:</i>		<i>Category:</i>
EC ₅₀ Fish	> 100 mg/l	Not classifiable
EC ₅₀ Daphnia	81.66 mg/l	3
EC ₅₀ Algae	76.22 mg/l	3
EC ₅₀ Micro-organism	12.55 mg/l	3

Persistence and degradability

No known toxic degradation products. No additional data available.

Bioaccumulative potential

Not expected to accumulate. No additional data available.

Mobility in soil

No test data available.

Other adverse effects

No additional data available.

13 Disposal considerations

Disposal methods

Waste disposal recommendations

At the time of review, criteria for land treatment or burial (sanitary landfill) disposal practices are subject to significant revision. Prior to implementing land disposal of waste residue (including waste sludge), consult with environmental regulatory agencies for guidance on acceptable disposal practices.

Dispose of waste and container in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together 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. **DO NOT** discharge into drains or the environment.

Ecology - waste materials

Avoid release to the environment.

Empty Container

DO NOT reuse container for any purpose. Consider refilling. Rinse/Decontaminate thoroughly before discarding in trash or return to supplier.

14 Transport information

UN Number

UN3266 Class 8 PG III Exempt 200 F: 5

UN Proper Shipping Name

CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.

Transport hazard class(es)

8



Packing group, if applicable

III Exempt Quantity 200Kg Factor 5

Environmental hazards

Acute Aquatic Toxicity Category 3. **Avoid** release into the environment.

Special precautions for user

DO NOT load with Class 1.

Keep aluminium gas cylinders apart from caustic bases.

May be loaded with Class 8A if kept at least 1 metre apart.

Can be loaded with all other classes.

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.

P, B, L and O provisions as per SANS 10231:2006

None

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

15 Regulatory information

Safety, health and environmental regulations specific for the product in question

SA NATIONAL LEGISLATION

Hazardous Substances Act 15 of 1973 and Regulations.

Occupational Health and Safety Act 85 of 1993 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 : 2008 : 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 aforementioned 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.

16 Other information

Other information

Full text of H & P - Statements referred to under section 2.

Hazard statements

H290	May be corrosive to metals.
H303	May be harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H360	May damage fertility or the unborn child.
H402	Harmful to aquatic life.

Precautionary statements

P201+P202	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
P234	Keep only in original container.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
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.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P406	Store in corrosive resistant container with a resistant inner liner.

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

Labelling REGULATION (EC) No 1272/2008

Signal Word

Danger

Pictograms Hazard to Human

GHS05 Corrosive Hazard

GHS07 Health Hazard

GHS08 Serious Health Hazard

Pictogram Hazard during Transport

Class 8 Corrosive substance

Training advice

Provide adequate information, instruction and training for operators.

Compiled by Aquatrade Water Treatment Chemicals (Pty) Ltd, R. van Rooyen, SHEQ Co-ordinator and E. Le Sar, Director.

MANUFACTURER/SUPPLIER DISCLAIMER:

IMPORTANT: 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 is the responsibility of the customer. Read the label before using this product. This information is true and accurate to the best of our knowledge.

Revision History

Revision:	Date:	Change:
1.0	2018/11/26	Preparation of the safety data sheet according to Regulation (EC) No 1907/2006 of the European Parliament and of the Council
2.0	2019/04/01	Section 7.2. Storage provisions added.