Aquatrade Water Treatment Chemicals (Pty) Ltd

Reg No: 2015/060029/07
Vat No: 4610268676

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1 Identification

GHS Product Identifier

AQT 139

Other means of identification

CAS:	Mixture not listed in registry
EC:	Mixture not listed in registry
RTECS:	Mixture not listed in registry
ICSC:	Mixture
Chemical Family:	Mixture
Synonyms:	NT139
Proper Shipping Name:	CORROSIVE LIQUID, TOXIC, N.O.S
Chemical Formula:	Mixture

Recommended use of the chemical and restriction on use

AQT 139 is a broad spectrum biocide for use in cooling water systems where bacteria and biofilm are expected to be present. It provides microorganism control and clean systems. It may be used alone or with other biocides on a rotation basis. Industrial Water Treatment. Not for food, drug or household use.

Supplier's details

AQUATRADE WATER TREATMENT CHEMICALS (PTY) LTD

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Tel: +27 11 394 0752
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
Acute Toxicity, Oral (Category 5), H303
Acute Toxicity, Dermal (Category 5), H313
Acute Toxicity, Inhalation (Category 3), H331
Skin Corrosion/Irritation, (Category 1), H314
Serious Eye Damage/Irritation, (Category 1), H318
Acute Aquatic Toxicity (Category 1), H400

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

GHS label elements

Danger

May be harmful if swallowed

May be harmful in contact with skin

Causes severe skin burns and eye damage

Causes serious eye damage

Toxic if inhaled

Very toxic to aquatic life

Do not breathe dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

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: 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.

Specific treatment (see P330+P351+P353 on this label).

Wash contaminated clothing before reuse.

Collect spillage.

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, 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

Inhalation:
Move to fresh air. Give artificial respiration if breathing has stopped. If symptoms persist, call a physician.

Skin contact:
IMMEDIATELY get under a safety shower. Remove contaminated clothing. Wash off with soap and water. Immediate medical attention is required. Wash contaminated clothing before reuse. **DO NOT** take clothing home to be laundered. Discard contaminated shoes, belts, and other articles made of leather.

Eye contact:
Rinse immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

Ingestion:
Drink 1 or 2 glasses of water. IMMEDIATELY see a physician. **Never** give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical

attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

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

Water spray jet, CO_2, Foam.

Unsuitable extinguishing media:
No data available.

Specific hazards arising from the chemical

Hazardous combustion products:
No data available

Unusual Fire and Explosion Hazards:
Combustion generates toxic fumes of the following: Hydrogen chloride; Nitrogen oxides (NOx); sulfur oxides.

Special protective actions for fire-fighters

Cool containers/tanks with water spray. Minimize exposure. **DO NOT** breathe fumes. Contain run-off.

Special protective equipment for firefighters:
Wear self-contained breathing apparatus and protective suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear a CEN approved (or equivalent) respirator (with organic vapor/acid gas cartridge and a dust/mist filter) during spill clean-ups and deactivation of this material. If exposed to material during clean-up operations, IMMEDIATELY remove all contaminated clothing and wash exposed skin areas with soap and water.

See SECTION 4, First Aid Measures, for further information.

Environmental precautions

DO NOT allow material to contaminate ground water system. Prevent product from entering drains.

Methods and materials for containment and cleaning up

WARNING: KEEP SPILLS AND CLEAN-UP RESIDUALS OUT OF MUNICIPAL SEWERS AND OPEN BODIES OF WATER.
Adsorb the spill with spill pillows or inert solids such as clay or vermiculite, and transfer contaminated materials to suitable containers for disposal. Deactivate spill area with freshly prepared solution of 5% sodium bicarbonate and 5% sodium hypochlorite in water.
Apply solution to the spill area at a ratio of 10 volumes deactivation solution per estimated volume of residual spill to deac tivate any residual active ingredient. Let stand for 30 minutes. Flush the spill area with copious amounts of water to chemical sewer (if in accordance with local procedures, permits and regulations). **DO NOT** add deactivation solution to the waste pail to deactivate the adsorbed material.

See Section 13, "Disposal Considerations", for information regarding the disposal of contained materials.

7 Handling and storage

Precautions for safe handling

This material is a severe irritant. For personal protection see section 8. **DO NOT** handle material near food, feed or drinking water.

Conditions for safe storage, including any incompatibilities

Keep in a well-ventilated place. The product as supplied may evolve gas (largely carbon dioxide) slowly. To prevent the buildup of pressure the product is packaged in specially vented containers, where necessary. Keep this product in the

original container when not in use. Container must be stored and transported in an upright position to prevent spilling the contents through the vent, where fitted.

DO NOT store this material in containers made of the following: Steel. **DO NOT** store this material near food, feed or drinking water.

CONTAINERS MAY BE HAZARDOUS WHEN EMPTY. Since emptied containers retain product residue follow all SDS and label warnings even after container is emptied. Expiration date based only on retention of >95% actives during storage at 20°C - 25°C (68°F - 77°F). Storage temperature: 1°C - 55°C.

SANS 10263-0
Seperate storage from Class 1.
Combined storage with all other classes are allowed with different classes segregated by an air space of at least 100mm or by an approved segregation device or non-dangerous goods.

Special provisions:
None

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:
Safety glasses with side-shield 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:
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9 Physical and chemical properties

Physical and chemical properties

Appearance (physical state, colour etc):	Colourless to yellow liquid
Odour:	Aromatic
Odour threshold:	No test data available
pH:	2.5 - 5.0
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:	1.03 - 1.05
Solubility(ies):	Miscible in all proportions
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 data available.

Chemical stability

Stable under normal use, storage and transport conditions.

Possibility of hazardous reactions

Product will not undergo polymerization. No hazardous reactions known.

Conditions to avoid

High temperature. Poor ventilation.

Incompatible materials

Avoid contact with the following: Oxidizing agents, Amines, Reducing agents and Mercaptans.

Hazardous decomposition products

Nitrogen oxides (NOx), Sulphur oxides and hydrogen chloride.

11 Toxicological information

Toxicological (health) effects

Product test data not available. Refer to component data.

COMPONENTS INFLUENCING TOXICOLOGY:
Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2Hisothiazol-3-one [EC no. 220-239-6] (3:1)

Acute inhalation toxicity:
LC_{50}, Rat, 4 Hour, dust/mist, 0.33 mg/l

Specific Target Organ Systemic Toxicity (Single Exposure)
Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Specific Target Organ Systemic Toxicity (Repeated Exposure)
Excessive exposure may cause irritation to upper respiratory tract (nose and throat).

Carcinogenicity
Did not cause cancer in laboratory animals.

Teratogenicity
Did not cause birth defects or other effects in the fetus even at doses which caused toxic effects in the mother.

Reproductive toxicity
In animal studies, did not interfere with reproduction.

Mutagenicity
In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects.

Aspiration Hazard
Aspiration into the lungs may occur during ingestion or vomiting, causing tissue damage or lung injury.

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

Refer "Toxicological (health) effects" above.

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

Product test data not available. Refer to component data.

COMPONENTS INFLUENCING TOXICOLOGY:
Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2Hisothiazol-3-one [EC no. 220-239-6] (3:1)

Inhalation toxicity:
Moderately toxic by inhalation. Inhalation of mist or vapour may cause irritation to the mucous membranes of the respiratory tract.

Skin toxicity:

Moderately toxic if absorbed through the skin. Dermal exposure can cause severe irritation and/or burns characterised by redness, swelling and scab formation. Prolonged skin exposure may cause permanent damage.

Eye Toxicity:
Corrosive. Burns can occur following exposure. Direct contact may cause impairments of vision, corneal damage and/or blindness. Rinsing of the eye should take place immediately.

Ingestion toxicity:
Toxic if swallowed. Irritation and/or burns can occur to the entire gastrointestinal tract, including the stomach and intestines, characterised by nausea, vomiting, diarrhea, abdominal pain, bleeding and/or tissue ulceration or perforation.

Carcinogenicity:
The product did not cause cancer in long-term animal studies.

Reproductive toxicity:
The product has been tested in laboratory animals and there was no evidence of reproductive toxicity.

Developmental toxicity:
The product has been tested in laboratory animals and there was no evidence of developmental toxicity.

Teratogenicity toxicity:
The product has been tested in laboratory animals and there was no evidence of teratogenicity toxicity.

Inhalation:
There are no known or reported effects from chronic exposure exept for effects similar to those experienced from acute exposure.

Skin contact:
Repeated dermal exposure may cause tissue destruction due to the corrosive nature of this product damage.

Eye contact:
Prolonged contact may result in permanent damage. Corneal involvement or visual impairment is expected.

Ingestion:
There are no known or reported effects from chronic ingestion exept for effects similar to those experienced from single exposure. The acute corrosivity of this product makes chronic ingestion of significant accounts unlikely.

Sensitization:
The product tested positive for skin sensitization in humans and laboratory animals. Repeated or prolonged skin contact may cause some individuals to develop skin rash and other skin complications due to allergic skin sensitization.

Specific target organ toxicity - single exposure:
No data available.

Specific target organ toxicity - repeated exposure:
The product is corrosive to all tissues contacted and upon inhalation, may cause irritation to mucous membranes and respiratory tract.

Aspiration hazard:
Aspiration into the lungs may occur during ingestion or vomiting, causing tissue damage or lung injury.

Numerical measures of toxicity (such as acute toxicity estimates)

Acute toxicity:		***Category:***
LD_{50} Oral Rat	3 046,67 mg/kg	5
LD_{50} Dermal Rabbit	4 400 mg/kg	5
LC_{50} Inhalation Vapours - Rat - 4Hr	2.2 mg/kg	3

Interactive effects

No test data available.

Where specific chemical data are not available

No additional data.

Mixtures

No additional data.

Mixture versus ingredient information

No additional data.

Other information

None.

12 Ecological information

Toxicity

Acute toxicity:		*Category:*
EC_{50} Fish	1.27 mg/l	2
EC_{50} Daphnia	0.02 mg/l	1
EC_{50} Algae	1.07 mg/l	2
EC_{50} Micro-organism	No data	

Persistence and degradability

For active ingredient (≤ 15% of mixture) refer below data.

Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2Hisothiazol-3-one [EC no. 220-239-6] (3:1)

Biodegradability:
Considered to be rapidly degradable. Material is not readily biodegradable according to OECD/EEC guidelines.

Biodegradation:
< 50 % Exposure time: 10 d Photodegradation Atmospheric half-life: 0.38 - 1.3 d

Bioaccumulative potential

For active ingredient (≤ 15% of mixture) refer below data.

Bioaccumulation:
5-Chloro-2-methyl-4-isothiazolin-3-one (CMIT): 2-Methyl-4-isothiazolin-3- one(MIT):

Partition coefficient n-octanol/water(log Pow): 0.401
Measured Partition coefficient: noctanol/water(log Pow): -0.486 Measured

Mobility in soil

For active ingredient (≤ 15% of mixture) refer below data.

Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2Hisothiazol-3-one [EC no. 220-239-6] (3:1)
Potential for mobility in soil is very high (Koc between 0 and 50).
Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

Partition coefficient (Koc):
28 Estimated.

Other adverse effects

For active ingredient (≤ 15% of mixture) refer below data.

Results of PBT and vPvB assessment

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.

Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2Hisothiazol-3-one [EC no. 220-239-6] (3:1)

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

13 Disposal considerations

Disposal methods

Waste disposal recommendations:

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. Rinse/Decontaminate thoroughly before discarding in trash or return to supplier.

14 Transport information

UN Number

UN2922 Class 8(6.1) PG III Exempt 50 F: 20

UN Proper Shipping Name

CORROSIVE LIQUID, TOXIC, N.O.S

Transport hazard class(es)

8(6.1)

Packing group, if applicable

III

Environmental hazards

Acute Aquatic Toxicity Category 1. **DO NOT** discharge or allow into the environment. Keep away from open water sources.

Special precautions for user

DO NOT load with Classes 1, 2.3, 4.1, 4.2 , 4.3, 5.1 and 5.2.
May be loaded with Classes 2.1, 2.2, 6.1, 6.2 and 8A if kept at least 1 metre apart.
DO NOT transport Nitromethane (UN1261) with toxics (Class 6.1).
DO NOT load with foodstuffs or stockfeeds.
Cyanides **must not** be transported with acid.
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

H303	May be harmful if swallowed
H313	May be harmful in contact with skin
H331	Toxic if inhaled
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H400	Very toxic to aquatic life.

Precautionary statements

P260	Do not breathe vapours/spray.
P264	Wash thoroughly after handling.
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+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.
P321	Specific treatment (see Specific treatment (see P330+P351+P353 on this label).
P363	Wash contaminated clothing before reuse.

P391 Collect spillage.
P405 Store locked up.
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
GHS06 Acute Toxicity
GHS09 Hazardous to the environment

Pictogram Hazard during Transport

Class 8 Corrosive
Class 6.1 Toxic

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	2018/08/27	Preparation of the safety data sheet according to Regulation (EC) No 1907/2006 of the European Parliament and of the Council
2.0	2019/03/07	Section 2. Classification & Label elements