



1 Identification

GHS Product Identifier

AQT 905

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, ORGANIC, N.O.S.
Chemical Formula:	Mixture

Recommended use of the chemical and restriction on use

AQT 905 is a liquid corrosion inhibitor program designed for high heat flux systems. It is a multi-component inhibitor that provides ferrous metal corrosion protection, copper alloy corrosion protection and scale inhibition. 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 - Inhalation (Category 5), H333
Skin Corrosion/Irritation (Category 1), H314
Eye Corrosion/Irritation (Category 1), H318

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

GHS label elements

Danger



Causes severe skin burns and eye damage

Causes serious eye damage

May be harmful if inhaled

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

Wash thoroughly after handling.

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 on this label).

Wash contaminated clothing before reuse.

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

Eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

Skin:

Wash skin with plenty of soap and water. Immediately call a poison center or doctor/physician.

Ingestion:

If swallowed: 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:

If symptoms noticed due to inhalation: Remove to fresh air. If breathing is difficult, have trained person administer oxygen. If not breathing, give artificial respiration. Call a physician immediately.

Most important symptoms/effects, acute and delayed

Eyes:

Causes severe skin burns and eye damage. pH: 9.7 - 10.2 @ 0.05% aqueous solution

Skin:

Cause serious eye damage. pH: 9.7 - 10.2 @ 0.05% aqueous solution

Ingestion:

Burns to the gastric/intestinal mucosa. Possible esophageal perforation. There is a risk of damage to the blood (methemoglobinemia) after ingestion.

Inhalation:

Exposure to high concentrations: Dry/sore throat. Coughing. Irritation of the respiratory tract. Irritation of the nasal

mucous membranes.

Following symptoms may appear later: Possible laryngeal spasm/oedema. Risk of lung edema. Respiratory difficulties.

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

Get immediate medical attention if any contact, swallowing or inhalation of product after initial first aid measures. Treat symptomatically.

5 Fire-fighting measures

Suitable extinguishing media

Dry chemical, CO₂, alcohol-resistant foam or water spray. **DO NOT** use direct water jet.

Specific hazards arising from the chemical

General Hazard:

In large fire fuelled by other materials this product may burn.

Hazardous combustion products:

CO₂, CO, NO_x

Unusual Fire and Explosion Hazards:

None known.

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

All personnel involved in spill cleanup should follow good industrial hygiene practices and avoid skin and eye contact by wearing appropriate personal protective equipment.

Environmental precautions

Prevent further leakage or spillage if safe to do so. **DO NOT** let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Safely stop source of spill. Restrict non-essential personnel from area.

Small spill:

Absorb with inert material and place in waste receptacle. Rinse contaminated area.

Large spill:

Absorb with inert material and place in waste receptacle. Rinse contaminated area to sewer drain system.

7 Handling and storage

Precautions for safe handling

DO NOT mix with other chemicals. Prevent contact with skin and eyes. **Avoid** inhalation of vapour or mist. Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

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.

12.8.8.4 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

Conditions for safe storage, including any incompatibilities

Keep this product in original closed container in cool area away from heat and strong oxidising agents. **DO NOT** store in mild steel containers unless suitably lined.

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.



Eye/face protection:

Safety glasses or goggles. Face shield. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

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: EN 374

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. This recommendation 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.

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:

No respiratory protection required. For nuisance protection use a EN 149:2001 FFP1 moulded respirator.

9 Physical and chemical properties**Physical and chemical properties**

Appearance (physical state, colour etc):	Clear colourless/light yellow liquid
Odour:	No recognisable odour
Odour threshold:	No test data available
pH:	9.7 - 10.2 @ 0.05% aq. sol.
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:	1.04 - 1.06 @ 20°C
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.

Chemical stability

Stable under normal operating conditions.

Possibility of hazardous reactions

Hazardous polymerisation will not occur under normal conditions.

Conditions to avoid

High temperature. Poor ventilation.

Incompatible materials

Avoid contact with strong oxidising and reducing agents. **Avoid** contact with all other chemicals.

Hazardous decomposition products

CO₂, CO, NO, NO₂

11 Toxicological information**Toxicological (health) effects*****Acute Toxicity:***

Eye and nasal irritation, headache, dizziness, nausea, vomiting, weakness, itching or burning of the skin.

Eye Contact:

May cause conjunctival irritation.

Skin Contact:

May cause irritation.

Inhalation:

May cause irritation.

Skin corrosion/irritation:

Causes severe skin burns and eye damage. pH: 9.7 - 10.2 @ 0.05% aqueous solution

Serious eye damage/irritation:

Cause serious eye damage. pH: 9.7 - 10.2 @ 0.05% aqueous solution

Respiratory or skin sensitization:

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

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:

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

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 (Mist/Vapour)

Inhalation - YES (Vapour)

Ingestion - YES (Unhygienic practices)

Symptoms related to the physical, chemical and toxicological characteristics

Refer section 11.1 Toxicological (health) effects.

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

Refer section 11.1 Toxicological (health) effects for immediate effects. No known chronic effects.

Numerical measures of toxicity (such as acute toxicity estimates)

Acute toxicity:		Category:
LD ₅₀ Oral Rat	>5 000 mg/kg	Not classifiable
LD ₅₀ Dermal Rabbit	>5 000 mg/kg	Not classifiable
LC ₅₀ Inhalation Vapours	86.4 mg/kg	5

Interactive effects

None known.

Where specific chemical data are not available

No data available.

Mixtures

No data available.

Mixture versus ingredient information

No data available.

Other information

None.

12 Ecological information

Toxicity

Acute toxicity:		Category:
EC ₅₀ Fish	>100 mg/l	Not classifiable
EC ₅₀ Daphnia	>100 mg/l	Not classifiable
EC ₅₀ Algae	>100 mg/l	Not classifiable
EC ₅₀ Micro-organism	>100 mg/l	Not classifiable

Persistence and degradability

At least partially biodegradable with no known toxic degradation products.

Bioaccumulative potential

No test data available.

Mobility in soil

No test data available.

Other adverse effects

None known.

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:

Avoid reusing empty container. Rinse/decontaminate thoroughly before discarding in chemical waste or return to supplier.

14 Transport information

UN Number

UN3267 Class 8 PG III Exempt 200 F: 5

UN Proper Shipping Name

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

Transport hazard class(es)

8



Packing group, if applicable

III Exempt quantity 200Kg F: 5

Environmental hazards

Very low aquatic toxicity. No known other environmental hazards.

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 11014 : 2010 : Safety Data Sheets for chemical Products

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 10228 : 2006 : Identification and Classification of Dangerous Goods for Transport by Road and Rail

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

H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H333	May be harmful if inhaled

Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
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 P330+P351 on this label).
P363	Wash contaminated clothing before reuse.
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

GHS05	Corrosive
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Acronyms:

CAS	Chemical Abstract Service
DNEL	Derived No-Effect Level
DMEL	Derived Minimal Effect Level
EINECS	European Inventory of Existing Commercial Chemicals
ICSC	International Chemical Safety Cards
PNEC	Predicted No-Effect Concentration
RTECS	Registry of Toxic Effects of Chemical Substances

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	2019/03/12	Preparation of the safety data sheet according to Regulation (EC) No 1907/2006 of the European Parliament and of the Council