



1 Identification

GHS Product Identifier

AQT 972

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:	Not regulated for transport
Chemical Formula:	Mixture

Recommended use of the chemical and restriction on use

AQT 972 is a specially formulated acidic polymer solution designed to remove scale formation in cooling water systems. It is also useful in evaporators and most other systems where calcium carbonate scale needs to be removed. Industrial Water Treatment. Not for food, drug or household use.

Supplier's details

AQUATRADE WATER TREATMENT CHEMICALS (PTY) LTD

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Emergency phone number

+27 82 921 0643 (Available Mon - Fri, GMT 5:00 to 20:00)

2 Hazard(s) identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Skin Corrosion/irritation (Category 1), H314

Serious Eye Damage/Eye 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

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

Wash thoroughly after handling.

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

Other hazards which do not result in classification

No hazard known not classified.

3 Composition/information on ingredients

Description	CAS Number	EINECS Number	%	Note
Sodium Hydroxide	1310-73-2	215-185-5	10 - 20	Skin Corr. 1A H314 Met. Corr. 1 H290 Eye Dam. 1 H318
2-Phosphonobutane-1,2,4,-tricarboxylic acid	37971-36-1		1 - 10	Acute Oral Toxicity (Category 5) Acute Inhalation Toxicity (Category 4) Skin Irritation (Category 2) Serious Eye Damage (Category 1) Corrosive to Metals (Category 1)

4 First-aid measures

Description of necessary first-aid measures

Eye Contact:

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Skin Contact:

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

Inhalation:

Move to fresh air. **DO NOT** use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. If not breathing, give artificial respiration.

Ingestion:

DO NOT induce vomiting. Call a physician or Poison Control Center immediately.

Most important symptoms/effects, acute and delayed

Causes eye burns. Causes burns by all exposure routes. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

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

Treat symptomatically.

5 Fire-fighting measures

Suitable extinguishing media

Suitable Extinguishing Media:

Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

Unsuitable Extinguishing Media:

Carbon dioxide (CO₂).

Flash Point	Not applicable
Method	No information available
Autoignition Temperature	No information available
Explosion Limits	Upper No data available Lower No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific hazards arising from the chemical

Corrosive Material. Causes burns by all exposure routes.

Hazardous Combustion Products:

Sodium oxides

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. Thermal decomposition can lead to release of irritating gases and vapors.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adequate ventilation. **DO NOT** get in eyes, on skin, or on clothing. Keep unprotected people away.

Environmental precautions

Dilute with plenty of water. **DO NOT** allow to enter sewers/ surface or ground water. See Section 12 for additional ecological information.

Methods and materials for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Use neutralizing agent. Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.

Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

Precautions for safe handling

No special precautions are necessary if used correctly. Wear personal protective equipment. **DO NOT** breathe vapors or spray mist. **DO NOT** get in eyes, on skin, or on clothing.

Information about protection against explosions and fires:

No special measures required.

Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles:

No special requirements.

Information about storage in one common storage facility:

Not required.

Further information about storage conditions:

Keep receptacle tightly sealed.

Specific end use(s):

No further relevant information available.

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

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

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 shields 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 an approved dust mask (FFP2 NR) EN 149:2001.

9 Physical and chemical properties

Physical and chemical properties

Appearance (physical state, colour etc):	Clear to hazy colourless liquid
Odour:	Slightly sweet
Odour threshold:	No test data available
pH:	7.0 - 8.5

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:	1.15 - 1.18
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

None known, based on information available.

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

None under normal processing. Hazardous polymerization does not occur.

Conditions to avoid

Incompatible products. Excess heat.

Incompatible materials

Strong acids, Metals, Powdered metals.

Hazardous decomposition products

Sodium oxides.

11 Toxicological information

Toxicological (health) effects

Acute toxicity:

Oral LD₅₀ - 3 945.4 mg/kg.

Skin corrosion/irritation:

Causes severe skin burns and eye damage.

Serious eye damage/irritation:

Causes serious eye damage.

Respiratory or skin sensitization:

Not classified

Germ cell mutagenicity:

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

Carcinogenicity:

Not classified

Reproductive toxicity:

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

Specific target organ toxicity – single exposure:

Not classified

Specific target organ toxicity – repeated exposure:

Not classified

Aspiration hazard:

Not classified

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

Potential Adverse human health effects and symptoms:

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

Symptoms/effects after 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.

Symptoms/effects after skin contact:

Caustic burns/corrosion of the skin. Slow-healing wounds.

Symptoms/effects after eye contact:

Corrosion of the eye tissue. Permanent eye damage. Causes serious eye damage.

Symptoms/effects after ingestion:

Vomiting. Diarrhoea. Burns to the gastric/intestinal mucosa. Possible esophageal perforation. Bleeding of the gastrointestinal tract. Shock. AFTER ABSORPTION OF LARGE QUANTITIES: Disturbances of consciousness.

Chronic symptoms:

Dry skin. Skin rash/inflammation. Possible inflammation of the respiratory tract.

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

Refer "Symptoms related to the physical ..." for immediate effects.

Chronic symptoms:

Dry skin. Skin rash/inflammation. Possible inflammation of the respiratory tract.

Numerical measures of toxicity (such as acute toxicity estimates)

Acute toxicity:		Category:
LD ₅₀ Oral Rat	3 945.41 mg/kg	5
LD ₅₀ Dermal	>5 000 mg/kg	Not classifiable
LC ₅₀ Inhalation	>5 000 mg/kg	Not classifiable

Interactive effects

None known.

Where specific chemical data are not available

No further information available.

Mixtures

No further information available.

Mixture versus ingredient information

No further information 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	No data	

Persistence and degradability

No product test data available.

Bioaccumulative potential

No product test data available.

Mobility in soil

No product test data available.

Other adverse effects

Avoid undiluted product or large quantities of it to reach ground water, water course or sewage system. Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Results of PBT and vPvB assessment:

PBT: Not applicable.

PvB: Not applicable.

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:

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

14 Transport information

UN Number**NOT REGULATED FOR TRANSPORT****UN Proper Shipping Name****NOT REGULATED FOR TRANSPORT****Transport hazard class(es)**

Not regulated for transport.

Packing group, if applicable

Not regulated for transport.

Environmental hazards**Avoid** release to the environment.**Special precautions for user**

None except those in sections 4 to 8.

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 : 2006 : 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***

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

Precautionary statements

H260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Labelling REGULATION (EC) No 1272/2008

Signal Word

Danger

Pictograms

GHS05 Corrosive Hazard

Acronyms:

- ACGIH American Conference of Governmental Industrial Hygienists
- ATE Acute Toxicity Estimate
- CAS Chemical Abstract Service
- DOT Department of Transport (USA)
- EINECS European Inventory of Existing Commercial Chemical Substances
- ICSC International Chemical Safety Cards
- IDLH immediately dangerous to life or health
- KGA Klein Gevaarlijk Afval
- LC₅₀ Median Lethal Concentration
- LWCA Landelijke Werkgroep Chemisch Afval
- RTECS Registry of Toxic Effects of Chemical Substances
- NFPA National Fire Protection Agency (USA)
- NIOSH National Institute for Occupational Safety and Health (USA)
- OSHA Occupational Safety and Health Administration (USA)
- PEL Permissible Exposure Limit
- REL Recommended Exposure Limit
- SARA Superfund Amendments and Reauthorization Act
- TWA Time-Weighted Average

Training advice:

Provide adequate information, instruction and training for operators.

Compiled by R. van Rooyen, SHEQ and E. Le Sar, COO.

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	2018/09/19	Preparation of the safety data sheet according to Regulation (EC) No 1907/2006 of the European Parliament and of the Council