SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

GHS PRODUCT IDENTIFIER

AQT 908

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:	INT 908
PROPER SHIPPING NAME:	CORROSIVE LIQUID, N.O.S.
CHEMICAL FORMULA:	Mixture not identified
PRODUCT STOCK CODE/S:	AQT908A(25Kg), AQT908B(200Kg), AQT908C(1000Kg)
SDS LINK:	http://aquatradesa.ddns.net/owncloud/index.php/s/i8Mn207nic1VRIf

RECOMMENDED USE	RESTRICTIONS ON USE
AQT 908 is a liquid corrosion inhibitor program designed for high heat flux systems. It is a multicomponent inhibitor that provides ferrous metal corrosion protection, copper alloy and aluminium corrosion protection and scale inhibition in closed cooling water systems.	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

SDS ENQUIRIES ONLY		
NAME	**TEL**	**HOURS AVAILABLE**
R. van Rooyen	+27 76 590 9559	SAST 08:00 – 16:00 Mon. – Fri.

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

Skin Corrosion/Irritation (Category 1), H314

Serious Eye damage/Irritation (Category 1), H318

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

GHS LABEL ELEMENTS

SIGNAL WORD: DANGER

GHS HAZARD CODES

Causes severe skin burns and eye damage.

GHS PRECAUTIONARY CODES

Do not breathe mist/vapours/spray.
Wash exposed areas [HANDS] 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): 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 doctor/first aider.
Specific treatment (see IF SWALLOWED, IF ON SKIN, IF INHALED, IF IN EYES on this label).
Wash contaminated clothing before reuse.
Store locked up.
Dispose of contents and container in accordance with local, regional, national, international regulations to licenced hazardous waste manager.

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
Oxygen Scavenger	CBI	CBI		< 10	H272: May intensify fire; oxidiser. H301: Toxic if swallowed. H319: Causes serious eye irritation. H400: Very toxic to aquatic life.
Sodium Salt	CBI	CBI		< 5	H290: May be corrosive to metals. H314: Causes severe skin burns and eye damage. H335: May cause respiratory irritation.
Sodium Nitrate	CBI	CBI		< 5	H272: May intensify fire; oxidiser. H319: Causes serious eye irritation.
Acrylate Copolymer	CBI	CBI		< 5	H315: Causes skin irritation. H319: Causes serious eye irritation.
Alkali	CBI	CBI		< 1	H290: May be corrosive to metals. H314: Causes severe skin burns and eye damage.
Organic Acid	CBI	CBI		< 1	H319: Causes serious eye irritation.

					H335: May cause respiratory irritation.
Azole	CBI	CBI		< 1	H302: Harmful if swallowed. H319: Causes serious eye irritation. H411: Toxic to aquatic life with long lasting effects.
pH Indicator	CBI	CBI		< 0.1%	H315: Causes skin irritation. H350: May cause cancer. H341: Suspected of causing genetic defects. H361: Suspected of damaging fertility or the unborn child.

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

SECTION 4 — FIRST-AID MEASURES

DESCRIPTION OF NECESSARY FIRST AID MEASURES

IF INHALED	Confirm that the airways are protected; also, ensure breathing and the presence of pulse. Remove to fresh air. Call a physician immediately.
IF IN CONTACT WITH EYES	If eye exposure has occurred, then wash thoroughly with copious amounts of water (for at least 15 minutes). Eyelids should be held away from the eyeball to ensure thorough rinsing. Remove contact lenses if present.
IF IN CONTACT WITH SKIN	**IMMEDIATELY** get under a safety shower. Remove contaminated clothing. Wash skin with plenty of water. If irritation persists, get medical attention.
IF INGESTED	Unless instructed by a healthcare professional, DO NOT induce vomiting in the affected individual. Following an ingestion of the substance, immediately drink a glass or two of water. In case of symptoms that indicate difficulty in swallowing including vomiting or decreased alertness, DO NOT give anything by way of mouth. Take individual to emergency room (ER) for further treatment. Always try to take the compound bottle/container to the ER.
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	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.
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	Vomiting. Diarrhoea. Burns to the gastric/intestinal mucosa. Possible oesophageal perforation. Bleeding of the gastrointestinal tract. Shock. After absorption of large quantities: Disturbances of consciousness.

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

Seek medical attention if any irritation persists after contact, swallowing or inhalation of product after initial first aid measures.

SECTION 5 — FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA	Use extinguishing media appropriate for surrounding fire. Water (spray - not splash), Dry extinguishing powder, Foam or Carbon dioxide.
EXTINGUISHING MEDIA NOT SUITABLE	None known.
SPECIFIC HAZARDS ARISING FROM THE CHEMICAL	Fumes of Carbon Monoxide and Carbon Dioxide Metal Oxide.
SPECIAL PROTECTIVE ACTIONS FOR FIRE-FIGHTERS incl. PPE	**Fire Fighting Procedures**: Cool containers/tanks with water spray. Minimize exposure. **DO NOT** breathe fumes. Contain run-off. As in any fire, wear self-contained breathing apparatus pressure-demand, SANS 50137:2011 (approved or equivalent) and full protective gear.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PPE & EMERGENCY PROCEDURES	**Isolation & Evacuation:** **Immediate Precautionary Measure**: Isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids. **Spill**: Increase the immediate precautionary measure distance, in the downwind direction, as necessary. **Fire**: If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.
ENVIRONMENTAL PRECAUTIONS	**Water spill**: Use natural barriers or oil spill control booms to limit spill travel. Use natural deep-water pockets, excavated lagoons, or sandbags barriers to trap material at bottom. Remove trapped material with suction hoses. **Land spill**: Dig a pit, pond, lagoon, holding area to contain liquid or solid material. Dike surface flow using soil, sandbags, foamed polyurethane, or foamed concrete. If material is not involved in a fire: Keep material out of water sources and sewers. Build dikes to contain flow as necessary. **DO NOT** use water on material itself.
METHODS & MATERIALS FOR CONTAIMENT & 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 labelled containers for disposal. Deactivate spill area. 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.

SECTION 7 — HANDLING AND STORAGE

<table>
<tr>
<td>PRECAUTIONS FOR SAFE HANDLING</td>
<td>Workplace: Provision of good ventilation in the working area. Washing facility at the workplace required. Eye bath required. These locations must be signposted clearly.

Equipment: Use closed apparatus if possible. If release of the substance cannot be prevented, then it should be suctioned off at the point of exit. Consider emission limit values, a purification of waste gases if necessary. Label containers and pipelines clearly.

Advice on safer handling: Take care to maintain clean working place. The substance must not be present at workplaces in quantities above that required for work to be progressed. Do not leave container open. Sufficient ventilation must be guaranteed for refilling, transfer, or open use. Avoid spillage. Fill only into labelled container. Avoid any contact when handling the substance. Avoid rising dust. Use an appropriate exterior vessel when transporting in fragile containers.\

Cleaning and maintenance: Use protective equipment while cleaning if necessary. Avoid dust formation. Dust formation that cannot be avoided must be collected regularly. Use a tested industrial vacuum cleaner or suction device. Do not raise dust while cleaning. Use of a blower for cleaning is not permitted. Only conduct maintenance and other work on or in the vessel or closed spaces after obtaining written permission. Only work with vessels and lines after they have been thoroughly rinsed.</td>
</tr>
<tr>
<td>CONDITIONS FOR SAFE STORAGE</td>
<td>Storage area: Store in a cool, dry area. Keep container in a well-ventilated place. Keep locked up. Unauthorized persons are not admitted. Meet the legal requirements.

Storage conditions: Storage temperature 10-27°C.

Collocated storage: Prohibited – Pharmaceuticals, foods, and animal feeds including additives.

Organisational Measures: DO NOT use any food containers - risk of mistake. Containers must be labelled clearly and permanently. Store in the original container as much as possible. Provide instruction on the hazards and the protective measures using an instruction manual is required with signature if just more than one minor hazard was detected. Instruction must be provided before employment and then at a minimum of once per annum thereafter.

Segregation and or Separation requirements:
<table>
<tr><td>Compatible</td><td>Dangerous goods of the same Class should be compatible; consult SDS or suppliers about requirements for individual substances.</td><td>Class 8</td></tr>
<tr><td>Keep Apart</td><td>Dangerous goods of these Classes should be kept apart by at least 3m. Consult the SDS or supplier.</td><td>Class 2.1, 2.2, 2.3, 3, 4.1, 4.2, and 4.3.</td></tr>
<tr><td>Segregate From</td><td>These combinations of dangerous goods should segregate by at least 5 m and kept in separate compounds or building compartments.</td><td>Class 1, 5.1, 6.1, 6.2 and 7</td></tr>
</table>
</td>
</tr>
</table>

	<table><tr><td>Segregation may be Necessary</td><td>Segregation of these Classes may be necessary. Consult the SDS or supplier.</td><td>N/A</td></tr><tr><td>Isolate</td><td>This requirement applies to organic peroxides, for which dedicated stores or storage cabinets are recommended. Adequate separation from other buildings and boundaries is required.</td><td>Class 5.2</td></tr><tr><td colspan="2">Dangerous goods of the same class could be incompatible or react dangerously; Consult SDS or suppliers about requirements for individual substances.</td><td>Class 8</td></tr></table> **NOTES**: 1. In all cases, the SDS or supplier of the goods should **ALWAYS** be consulted. 2. Non-dangerous goods may be kept in segregation spaces, if they will not react dangerously with any of the dangerous goods being kept. 3. Non-dangerous goods that are combustible (excluding combustible liquids) may be kept in such spaces, provided that. a) hazard assessment, including an assessment of the additional fire load, has been carried out; and b) any necessary additional fire protection is provided. The volume of any non-dangerous goods kept in the segregation spaces needs to be considered when calculating the volume of the spillage containment for the store. **UN Packaging Codes** <table><tr><th>Stock Code</th><th>Pack Size</th><th>Make & Category</th><th>UN Code</th></tr><tr><td>AQT908A</td><td>25 Kg</td><td>Jerrican Plastics Non-Removable Head</td><td>UN3H1/Y</td></tr><tr><td>AQT908B</td><td>200 Kg</td><td>Drums Plastics Non-Removable Head</td><td>UN1H1/Y</td></tr><tr><td>AQT908C</td><td>1 000 Kg</td><td>Composite IBC Plastic Receptacle Steel Cage</td><td>UN31HA1/Y</td></tr></table> **Shelf Life**: 12 Months.
INCOMPATIBILTIES	Keep away from organic oxidizing agents, amines, reducing agents, mercaptans, alcohols, cyanides, iodine, strong acids & bases.
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: Toxic and infectious substances shall be separated from other flammable products and aerosols.

a. Toxic and infectious substances shall be segregated from oxidizing substances, organic peroxides, and **corrosives**.
b. 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	> 50 kg
Category 3	> 1 000 kg

SECTION 8 — EXPOSURE CONTROLS AND PERSONAL PROTECTION

CONTROL PARAMETERS

OCCUPATIONAL EXPOSURE LIMITS (OEL)	Contains no substances with maximum occupational exposure limit values. **SOUTH AFRICA: HCA REG,2021**: **Sodium Hydroxide**: 1310-73-2: NaOH: OEL-STEL/C 4 mg/m3 **INTERNATIONAL**: **Sodium Hydroxide**: 1310-73-2: NaOH: OSHA: OSHA PEL (TWA) (mg/m³) 2 mg/m³ IDLH: US IDLH (mg/m³) 10 mg/m³ NIOSH: NIOSH REL (ceiling) (mg/m³) 2 mg/m. **Phenolphthalein**: TEEL-1: 0.58 mg/m; TEEL-2: 36.3 mg/m; TEEL-3: 3200 mg/m3
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

<table>
<tr><td>EYE PROTECTION</td><td>  </td><td>Wear indirect vented 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.</td></tr>
<tr><td>FACE PROTECTION</td><td>  </td><td>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.</td></tr>
<tr><td>HAND PROTECTION</td><td>  </td><td>Use protective gloves. 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.

Suggested material:
Rating: 1 – Not Recommended, 2 – Good, 3 – Fair, 4 – Excellent, 0 – Not Tested
<table>
<tr><th>Material Type</th><th>Rating</th><th>Breakthrough</th></tr>
<tr><td>Butyl</td><td>4</td><td>> 8 Hrs</td></tr>
<tr><td>Neoprene</td><td>4</td><td>> 8 Hrs</td></tr>
<tr><td>PVC (Polyvinylchloride)</td><td>4</td><td>> 8 Hrs</td></tr>
<tr><td>Viton</td><td>4</td><td>> 8 Hrs</td></tr>
<tr><td>Nitrile (Acrylonitrile Butadiene Rubber)</td><td>3</td><td>> 4 Hr</td></tr>
<tr><td>Natural Rubber (Latex)</td><td>1</td><td>< 1 Hr</td></tr>
<tr><td>Synthetic Fibre/Fibreglass</td><td>1</td><td>< 1 Hr</td></tr>
</table>
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.</td></tr>
<tr><td>BODY PROTECTION</td><td>  </td><td>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.

For entry into a situation where the spilled material and its characteristics are unknown a totally encapsulated chemical suit should be worn.</td></tr>
<tr><td>RESPIRATORY PROTECTION</td><td>  </td><td>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.</td></tr>
</table>

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):	Clear Dark Pink/Purple Liquid
ODOUR:	No recognizable odour
ODOUR THRESHOLD:	No additional data available.
pH:	9.7 - 10.2 @ 1% Aq. Sol.
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:	1.05 – 1.07
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 known dangers resulting from a reactivity of the mixture have been identified.
CHEMICAL STABILTY	Stable under normal conditions of storage, handling, and transport.
POSSIBILTY of HAZARDOUS REACTIONS	None known. Hazardous polymerisation will not occur under normal conditions.
CONDITIONS TO AVOID	Avoid high temperatures. Poor ventilation.
INCOMPATIBLE MATERIALS	Avoid contact with organic oxidizing agents, amines, reducing agents, mercaptans, alcohols, cyanides, iodine, strong acids and bases.
HAZARDOUS DECOMPOSITION PRODUCTS	Carbon Monoxide, Carbon Dioxide, Toxic fumes.

SECTION 11 — TOXICOLOGICAL INFORMATION

TOXICOLOGICAL (HEALTH) EFFECTS

ACUTE TOXICITY	Based on available data, the classification criteria are not met.
SKIN CORROSION/IRRITATION	Based on available data, the classification criteria are not met.
SERIOUS EYE DAMAGE/EYE IRRITATION	Causes skin burns and eye damage. pH: 9.7 - 10.2 @ 1% Aq. Sol
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	Based on available data, the classification criteria are not met.

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

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 oedema. Respiratory difficulties.

Symptoms/effects after skin contact: Exposure to high concentrations: Caustic burns/corrosion of the skin. Slow-healing wounds.

Symptoms/effects after eye contact: Exposure to high concentrations: Corrosion of the eye tissue. Permanent eye damage. Causes serious eye damage.

Symptoms/effects after ingestion: Exposure to high concentrations: Vomiting. Diarrhoea. Burns to the gastric/intestinal mucosa. Possible oesophageal perforation. Bleeding of the gastrointestinal tract. Shock. After absorption of large quantities: Disturbances of consciousness.

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)

TEST	ROUTE	SPECIES	VALUE	EFFECTS
LD50	Oral	Rat	> 5 000mg/kg bw	Refer above section 11.1
LC50	Inhalation	Rat	> 20 mg/l	Refer above section 11.1
LD50	Dermal	Rat	> 5 000 mg/kg bw	Refer above section 11.1

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

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.

Ecological injuries are not known or expected under normal use.

MOBILITY IN SOIL

No additional data available.

OTHER ADVERSE EFFECTS

This product is toxic to algae. 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.

Collection of small amounts of substance: Feed in sodium hypochlorite solution with agitation, if necessary, react several days. Attention, some substances may react vigorously! Possibly discharge liberated toxic or flammable gases.

Place in a collection container for salt solutions, adjust for a pH value of 6-8, or place in a collection container for poisonous inorganic residues as well as heavy-metal salts and their solutions.

Collection vessels must be clearly labelled with a systematic description of their contents. Store the vessels in a well-ventilated location. Entrust them to the appropriate authorities for disposal.

ECOLOGY – WASTE MATERIAL

DO NOT release to the environment.

EMPTY CONTAINER

Avoid reuse of empty container for other storage purposes.

Recycling Information

Packaging Type	Description	UN Code	Portion & Material	Symbol
Jerrican	Plastics Non-Removable Head	UN3H1/Y	Body & Enclosure (HDPE)	02 PE-HD
Composite IBC	Plastic Receptacle Steel Cage	UN31HA1/Y	Body & Enclosure (HDPE) Cage (Steel)	02 PE-HD 40 FE
Drums	Plastics Non-Removable Head	UN1H1/Y	Body & Enclosure (HDPE)	02 PE-HD

SECTION 14 — TRANSPORT INFORMATION

TRANSPORTATION CLASSIFICATION	ADR/RID	ADN(R)	IMDG	ICAO/IATA	
UN NUMBER	1760				
PROPER SHIPPING NAME	CORROSIVE LIQUID, N.O.S.				
HAZARD CLASS(ES)	8.2 				
PACKING GROUP	III				
MARINE POLLUTANT	No				
EMERGENCY RESPONSE	**ERG 2020** 154	-	**EMS GUIDE** F-A; S-B	**ERG DRILL GUIDE** 8L - Corrosive, Other	
EXEMPT / QUANTITY LIMITATIONS KG	**Exempt / Factor**	**Passenger rail**	N/A	**Passenger aircraft**	**Cargo aircraft**
	200 / 5	5 Kg		5 Kg	60 Kg
P, B, L & O Provisions SANS 10231	B9b	N/A	N/A	N/A	
Vessel Stowage	**10A -** A				
	10B – 40				
NEMA Reportable Quantity	Not Listed Supplier Quantity (5 000Kg)				
US CODE of FEDERAL REGULATIONS					
IBC TRANSPORT					
IB CODE	IB3 Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2)				
IP CODE	N/A				
PORTABLE TANKS SPECIFICATIONS					

T CODES	Portable tank instruction	Minimum test pressure (bar)	Minimum shell thickness (in mm-reference steel)	Pressure-relief requirements	Bottom opening requirements
	T7	4	§ 178.274(d)(2)	Normal	§ 178.275(d)(3)

IM & UN SPECIFICATION PORTABLE TANK	
TP CODE	TP1 - 49 CFR 172 Special Provision TP1 (TP-Codes) – HazMat Tool

	TP28 - 49 CFR 172 Special Provision TP28 (TP-Codes) – HazMat Tool
NON-BULK PACKAGING SPECIFICATIONS	
N CODE	N/A

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”.

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:
B9b - Carriage in bulk of full loads (if class 8, only for wastes) is permitted in closed containers or in sheeted large containers with complete walls. For wastes of class 8, containers shall be equipped with a suitable and sufficiently stout inner lining.

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.
SANS 10263-0: 2017: The Warehousing of Dangerous Goods Part 0: General Requirements

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
H314: Causes severe skin burns and eye damage.	P234: Keep only in original packaging. P260: Do not breathe mist/vapours/spray. P264: Wash exposed areas [HANDS] 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): 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. P310: Immediately call a doctor/first aider. P321: Specific treatment (see IF SWALLOWED, IF ON SKIN, IF INHALED, IF IN EYES on this label). P363: Wash contaminated clothing before reuse. P390: Absorb spillage to prevent material damage. P405: Store locked up. P406: Store in a corrosion resistant/… container with a resistant inner liner. P501: Dispose of contents and container in accordance with local, regional, national, international regulations to licenced hazardous waste manager

LABELLING SANS 10234:2008
SIGNAL WORD: DANGER

PICTOGRAMS

PHYSICAL & HEALTH HAZARD		ENVIRONMENTAL HAZARD	TRANSPORT	
GHS05	Corrosive Substance	N/A	Class 8.2	Corrosive Alkaline
				

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
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 and provide adequate information, instruction, and training for operators.

COMPILED BY: CST Comp: R. van Rooyen.

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