

# Safety Data Sheet



## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

**Product Name/Identifier** Cooling Water Treatment (DA-1)  
**Product Code** WT3933(1)  
**Product Use** Formulated to eliminate, control and prevent algae and slime growth.  
**Company Information** Vance Chemicals Pte Ltd  
No.24 Gul Lane  
Singapore 629418  
+65 6863 0863  
[msds@mr-mckenic.com](mailto:msds@mr-mckenic.com)  
**Emergency Contact** +65 9299 8024

## SECTION 2 HAZARDS IDENTIFICATION

### GHS CLASSIFICATION

Health		Environmental	Physical
Skin Corrosion/Irritation	Category 1	Aquatic Acute Toxicity	Category 2
Eye Damage/Irritation	Category 1		

### GHS PICTOGRAM:



**SIGNAL WORD:** Danger

### Hazard Statements:

H314 Causes severe skin burns and eye damage  
H318 Causes serious eye damage  
H401 Toxic to aquatic life

### Precautionary Statements

#### Prevention:

P260 Do not breathe dust/ fume /gas/mist/ vapours/spray.  
P264 Wash thoroughly after handling  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protective  
P273 Avoid release to the environment.

#### Response:

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  
P363 Wash contaminated clothing before reuse.  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P310 Immediately call a POSION CENTER or doctor/physician.

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P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**Storage:**

P405 Store locked up

**Disposal:**

P501 Dispose of contents/container to an approved waste disposal plant.

## SECTION 3 COMPOSITIONS / INFORMATION ON INGREDIENTS

Chemical Identity	CAS #	EC #	Weight %
Quaternary ammonium compounds	8001-54-5	264-151-6	10-20
Non-hazardous materials	Mixture	-	>70

## SECTION 4 FIRST AID MEASURES

**Eye contact**

Immediately flush eyes with large amounts of water for at least 15 minutes while holding the eyelids open. If redness, swelling, pain and blister occur, transport to the nearest medical facility for additional treatment.

**Skin contact**

Remove contaminated clothing. Flush exposed area with large amount of water for at least 15 minutes followed by washing with soap. If redness, swelling, pain and blister occur, transport to the nearest medical facility for additional treatment.

**Inhalation**

Remove to open area for fresh air. If rapid recovery does not occur, transport to the nearest medical facility for additional treatment.

**Ingestion**

For ingestion in large amount, immediately give person large quantities of water or milk to drink, followed by fruit juice or vinegar to neutralize. Do not induce vomiting. Obtain medical assistance immediately.

## SECTION 5 FIRE FIGHTING MEASURES

**Suitable Extinguishing Media**

Use water spray to cool fire-exposed containers. In case of fire use water spray, dry chemical, carbon dioxide, or chemical foam.

**Unsuitable Extinguishing Media**

No restrictions

**Specific Hazards Arising from the Chemical**

Not considered to be a fire hazard. May react with metals or heat to release flammable hydrogen gas

**Protection for Fire-fighters**

Evacuate personnel to safe areas. Intervention only by capable personnel who are trained and aware of the hazards of the product. In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Clean contaminated surface thoroughly.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**Personal Precautions and Protective Equipment**

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required, due to toxicity or flammability of the material. Refer to protective measures listed in sections 7 and 8. Prevent further leakage or spillage if safe to do so. Keep away from open flames, hot surfaces and

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sources of ignition. Keep away from incompatible products. Isolate the area. Cover the spreading liquid with foam in order to slow down the evaporation. Ventilate the area.

## Environmental Precautions

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation. Spill may be carefully neutralized with lime (calcium oxide, CaO).

## Method for Cleaning Up & Containment

Contain and recover liquid when possible. Neutralize with alkaline material (soda ash, lime), then absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer.

## Emergency Procedures

Shut off leaks, if possible without personal risks. Remove all possible ignitions in the surrounding area. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth or other appropriate barriers. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Monitor area with combustible gas indicator.

## SECTION 7 HANDLING AND STORAGE

**Precautions for Safe Handling:** Use only in well-ventilated areas. Avoid contact with skin and eyes. Prevent product vapours decomposition from contacting hot spots. Keep away from heat and sources of ignition. Keep away from incompatible products. Do not wash out container and use it for other purposes. When diluting, always add the acid to water; never add water to the acid. When opening metal containers, use non-sparking tools because of the possibility of hydrogen gas being present. Protect from freezing. Containers of this material may be hazardous when empty since they retain product residues (vapours, liquid); observe all warnings and precautions listed for the product.

**Conditions for Safe Storage:** Keep container dry. Keep in a cool, well-ventilated place with acid resistant floors and good drainage. Protect from physical damage. Keep out of direct sunlight and away from heat and incompatible materials. Ground all equipment containing material. Storage containers should be earthed and bonded. Drums must be earthed and bonded and equipped with self-closing valves, pressure vacuum bungs and flame arresters. Keep container tightly closed.

Storage temperature: Ambient

Storage/Transport Pressure: Atmospheric

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Component	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
Quaternary ammonium compounds	Not Established	Not Established	Not Established	Not Established

## Engineering Controls

Ensure adequate ventilation. Provide appropriate exhaust ventilation at machinery. Refer to protective measures listed in sections 7 and 8. Apply technical measures to comply with the occupational exposure limits.

## Personal Protective Equipment (PPE):

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## Eye Protection

Eye protection is not required under normal conditions of use. If material is handled such that it could be splashed into eyes, wear plastic face shield or splash-proof safety goggles.

## Skin Protection

Apron/boots of neoprene if risk of splashing. For hand protection, use chemical resistant protective gloves such as Polyvinyl alcohol coated gloves.

## Respiratory Protection

In the case of hazardous fumes, wear self contained breathing apparatus. Self-contained breathing apparatus in medium confinement/insufficient oxygen/in case of large uncontrolled emissions/in all circumstances when the mask and cartridge do not give adequate protection

## Thermal hazards

NA

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Clear
<b>Odour</b>	Characteristic
<b>Odour Threshold</b>	NA
<b>pH</b>	7
<b>Melting Point/ Freezing Point (°C)</b>	Not determined
<b>Initial boiling point and range (°C)</b>	Not determined
<b>Flash Point (°C) [According to ISO 3679, Closed Cup Testing]</b>	No flash point detected (From ambient temperature to 93°C)
<b>Evaporation Rate</b>	Not determined
<b>Flammability (solid, gas)</b>	Not applicable
<b>Vapour Pressure</b>	Not determined
<b>Upper/lower Flammability (Explosive) Limits:</b>	Not determined
<b>Vapour Density</b>	Not determined
<b>Relative Density</b>	0.98 ± 0.03
<b>Solubility in water</b>	Insoluble
<b>Partition coefficient (N-Octanol/water)</b>	Not determined
<b>Auto-ignition Temperature (°C)</b>	Not determined
<b>Decomposition Temperature:</b>	Not determined
<b>Viscosity (mPa s)</b>	Not determined

## SECTION 10 STABILITY AND REACTIVITY

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**Reactivity/Incompatible materials**

Strong acids. Strong bases. Strong oxidizers

**Chemical Stability**

Stable under ordinary conditions of use and storage.

**Possibility of hazardous reactions**

Not determined

**Hazardous decomposition products**

No decomposition if stored normally

**Conditions to avoid**

Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems. Avoid direct sunlight or ultraviolet sources.

**Materials to avoid**

Strong caustics and alkalis, strong oxidizers,

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**SECTION 11 TOXICOLOGICAL INFORMATION**

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Acute oral toxicity (LD50): >5000 mg/kg [Rat].

Acute dermal toxicity (LD50): Not established

Acute inhalation toxicity (LC50): Not established

**Skin corrosion/irritation:** Corrosive to the skin.

**Serious eye damage/irritation:** Harmful in contact to eyes. May cause serious eye damage.

**Carcinogenicity:** Not listed under IARC.

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**SECTION 12 ECOLOGICAL INFORMATION**

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**Toxicity**

Aquatic Toxicity (Summation method)

$(M \times 10 \times \text{Acute1}) + \text{Acute2} \geq 25\%$

**Bio accumulative Potential**

Not expected to bioaccumulate significantly

**Mobility in soil**

It will have high mobility in soil and potential to leach into groundwater. Upon release to the environment, the compound is expected to partition to and be transported in surface water and groundwater.

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**SECTION 13 DISPOSAL CONSIDERATIONS**

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Local legislation

Dispose in compliance with local/federal and national regulations. It is recommended to contact the producer for recycling/recovery. Or send the product to an authorized hazardous waste incinerator.

Container Disposal

To avoid treatments, as far as possible, use dedicated containers. If not, rinse the empty containers with a low volatility hydrocarbon and treat the effluent in the same way as waste. Containers that cannot be cleaned must be treated as waste.

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**SECTION 14 TRANSPORT INFORMATION**

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## Marking requirement

### Land (ADR)

UN number	1760
UN Class	8
Subsidiary risk	NA
Packing Group	III
Proper shipping name	CORROSIVE LIQUID, N.O.S. (QUATERNARY AMMONIUM COMPOUNDS)

### Sea (IMDG)

UN number	1760
UN Class	8
Subsidiary risk	NA
Packing Group	III
Proper shipping name	CORROSIVE LIQUID, N.O.S. (QUATERNARY AMMONIUM COMPOUNDS)
Marine pollutant	No
IBC Provision	IBC03
EmS	F-A, S-B
Stowage and Handling	CATEGORY A, SW2

### Air (IATA)

UN number	1760
UN Class	8
Subsidiary risk	NA
Packing Group	III
Proper shipping name	CORROSIVE LIQUID, N.O.S. (QUATERNARY AMMONIUM COMPOUNDS)

### Special precautions:

Before transportation, make sure the containers are tightly sealed and that there are no liquid or gas leaks.

When transporting containers, be sure that they are tightly fastened. An appropriate buffer material should be placed between them to prevent them from bumping each other and being damaged during transport.

## SECTION 15 REGULATORY INFORMATION

### USA Information

**This product does not contain any chemical(s) which is listed under Comprehensive Environmental Response and Liability Act of 1980 (CERCLA).**

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## Superfund Amendments and Reauthorization Act (SARA) Title III Information: SARA Section 311/312 (40 CFR 370) Hazard Categories.

<u>Ingredient</u>	<u>Acute Hazard</u>	<u>Chronic Hazard</u>	<u>Fire Hazard</u>	<u>Pressure Hazard</u>	<u>Reactivity Hazard</u>
Quarternary Ammonium compounds	Yes	Yes	No	No	No

**This product does not contain any toxic chemical(s) subject to reporting requirements of SARA Section 313 (40 CFR 372).**

### Canada Information

**This product does not contain any chemical(s) which is listed under WHMIS classification.**

## SECTION 16 OTHER INFORMATION

**Department issuing date sheet:** Vance Chemicals Quality Control and Laboratory

**Original Issue date:** 25<sup>th</sup> May 2011

**Revision no:** 03

**Revision date:** 20 April 2018

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