

Safety Data Sheet



SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Product Name/Identifier Algae-Con
Product Code WT3907(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
Emergency Contact +65 9299 8024

SECTION 2 HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Health		Environmental		Physical
Skin Corrosion/Irritation	Category 1	Aquatic Acute Toxicity	Category 1	Not Applicable
Eye Damage/Irritation	Category 1	Aquatic Chronic Toxicity	Category 1	
Acute Toxicity (Oral)	Category 4			

GHS PICTOGRAM:



SIGNAL WORD: Danger

Hazard Statements:

H302 Harmful if swallowed
H314 Causes severe skin burns and eye damage
H318 Causes serious eye damage
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects

Precautionary Statements

Prevention:

P260 Do not breathe dust/ fume /gas/mist/ vapours/spray.
P264 Wash thoroughly after handling
P270 Do not eat, drink or smoke when using this product
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protective

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



Safety Data Sheet

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.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P391 Collect spillage

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	80
Non-hazardous materials	Mixture	-	20

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.

Safety Data Sheet



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 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.

Safety Data Sheet



Personal Protective Equipment (PPE):

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

Appearance	Clear
Odour	Characteristic
Odour Threshold	NA
pH	6 - 8
Melting Point/ Freezing Point (°C)	Not determined
Initial boiling point and range (°C)	Not determined
Flash Point (°C) [According to ISO 3679, Closed Cup Testing]	No flash point detected (From ambient temperature to 93°C)
Evaporation Rate	Not determined
Flammability (solid, gas)	Not applicable
Vapour Pressure	Not determined
Upper/lower Flammability (Explosive) Limits:	Not determined
Vapour Density	Not determined
Relative Density	0.98 ± 0.03
Solubility in water	Soluble
Partition coefficient (N-Octanol/water)	Not determined
Auto-ignition Temperature (°C)	Not determined
Decomposition Temperature:	Not determined
Viscosity (mPa s)	Not determined

Safety Data Sheet



SECTION 10 STABILITY AND REACTIVITY

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,

SECTION 11 TOXICOLOGICAL INFORMATION

Acute toxicity (ATE_{mix})

Acute oral toxicity (LD50): 500 mg/kg

Acute dermal toxicity (LD50): 3560 mg/kg

Acute inhalation toxicity (LC50): Not established

Carcinogenicity: Not listed under IARC.

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Fish (EC50): 0.02 mg/L (96 hours)

Daphnia (EC50): 0.016 mg/L (48 hours)

Daphnia (NOEC): 0.025 mg/L (21 days)

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.

SECTION 13 DISPOSAL CONSIDERATIONS

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.

Safety Data Sheet



SECTION 14 TRANSPORT INFORMATION

Land (ADR)

UN Number 1760
UN Class 8
Subsidiary Risk : NA
Packing Group II
Proper Shipping Name : CORROSIVE LIQUID, N.O.S. (BENZALKONIUM CHLORIDE)
HIN : NA

Sea (IMDG)

UN Number 1760
UN Class 8
Subsidiary Risk : NA
Packing Group II
Proper Shipping Name : CORROSIVE LIQUID, N.O.S. (BENZALKONIUM CHLORIDE)
HIN : NA

Sea (Annex II of MARPOL 73/78 and the IBC Code)

Marine Pollutant : Yes
EMS Number : F-A, S-B
Ship Type : IBC02
Product Name : CORROSIVE LIQUID, N.O.S. (BENZALKONIUM CHLORIDE)

Air (IATA)

UN Number 1760
UN Class 8
Subsidiary Risk : NA
Packing Group II
Proper Shipping Name : CORROSIVE LIQUID, N.O.S. (BENZALKONIUM CHLORIDE)

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

Applicable national regulations:

Standards on Hazard communication for hazardous chemicals and dangerous goods

- SS 586: Part 1: 2014-Transport and storage of dangerous goods
- SS 586: Part 2: 2014-GHS of classification and labelling of chemicals
- SS 586: Part 3: 2008-Preparation of safety data sheet

MOM: Workplace Safety and Health Act & Workplace Safety and Health (General Provisions) Regulations

- This product is subject to SDS, labelling, PEL and other requirements in the Acts/Regulations.

NEA: Environmental Protection and Management Act & Environmental Protection and Management (Hazardous Substances) Regulations

- This product is not subject to control under this Acts/Regulations.

SCDF: Fire Safety Act & Fire Safety (Petroleum and Flammable Materials) Regulations

- This product is not subject to the requirement of this Acts/Regulations.

Safety Data Sheet



SPF: The Arms and Explosive Act, the Arms and Explosives (Explosives) Rules, and the Arms and Explosives (Explosive Precursors) Rules

- This product is not subject to the requirement of this Acts/Regulations

SECTION 16 OTHER INFORMATION

Department issuing date sheet: Vance Chemicals Quality Control and Laboratory

Original Issue date: 18th May 2011

Revision no: 02

Revision date: 20 August 2020

This product is intended for use by skilled individuals at their own risk. The information, data and recommendations set forth herein are presented in good faith and are believed to be correct as of the date hereof. The company / manufacturer makes no representations as to the completeness or accuracy of the Information and disclaims responsibility for any reliance thereon. The information is provided upon the condition that the persons receiving will make their own determination as to its suitability for their purposes prior to use. Any use of the Information must be determined by the user to be in accordance with applicable Federal, state and local laws and regulations. In no event will the company / manufacturer be responsible for damages of any nature whatsoever resulting from the use or reliance upon the Information.

NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE WITH RESPECT TO THE INFORMATION OR THE PRODUCT TO WHICH THE INFORMATION REFERS.