Safety Data

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Product Name/Identifier	Biocide
Product Code	WT3909
Product Use	Formulated to control microbiological slime, bacteria and algae
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 INDENTIFICATION

GHS CLASSIFICATION

Health		Environmental	Physical
Acute toxicity (Oral)	Category 4	Not classified	Not classified
Skin corrosion	Category 1		

GHS LABEL:

Hazard Statements

H301 Toxic if swallowed
H314 Causes severe skin burns and eye damage

Prevention Precautionary Statements

P260 Do not breathe fumes.
P264 Wash face, hands and any exposed skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response Precautionary Statements

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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 to fresh air and keep at rest in a position comfortable for breathing.
P363	Wash contaminated clothing before reuse.
P310	Immediately call a POISON CENTER or doctor/physician.

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 #	EINECS #	R Phrase	S Phrase	Weight %
Calcium hypochlorite, dry, granular	7778-54-3	231-908-7	R8, R22, R31, R34, R50	(S1/2), S26, S36/37/39, S45,S61	<10
Sodium o-phenylphenate	132-27-4	205-055-6	R22, R37/38, R41	S2, S22, S26, S61	<1
Non Hazardous					>90

SECTION 4 FIRST AID MEASURES

Contact with eyes — 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 — If swallowed, do not induce vomiting; transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspirations.

SECTION 5 FIRE FIGHTING MEASURES

Suitable Extinguishing Media
Non-flammable. Use water spray, fog or foam to cool fire exposed surfaces and to protect personnel.

Unsuitable Extinguishing Media
No restrictions

Specific Hazards Arising from the Chemical
Decomposition under fire conditions will generate carbon monoxide and may generate other potentially toxic vapors.

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 fire, wear self-contained breathing apparatus. When intervention in close proximity wear acid resistant over suit. Clean contaminated surface thoroughly.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions and Protective Equipment
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
Prevent discharges into the environment (sewers, rivers, soils). Immediately notify the appropriate authorities in case of discharge.

Method for Cleaning Up & Containment
If possible, dam large quantities of liquid with sand or earth. Collect the product with suitable means. Place everything into a closed, labeled container compatible with the product. Flush with plenty of water. Prevent product from entering drains. Treat recovered material as described in the section "Disposal considerations".

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 proper bonding and grounding (earthing) all equipment. Electrostatic discharge may cause fire. Prevent small spills and leakage to avoid slip hazard. Avoid contact with skin.

Conditions for Safe Storage: Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.

Storage temperature: Ambient
Storage/Transport Pressure: Atmospheric

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Component	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
Calcium hypochlorite, dry, granular	Not Established	Not Established	Not Established	Not Established
Sodium o-phenylphenate	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):

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	Liquid
Odour	Odourless
Odour Threshold	NA
pH	10-12
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
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	1.10 ± 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

SECTION 10 STABILITY AND REACTIVITY

Reactivity/Incompatible materials
Strong oxidizers, strong acids and bases.

Chemical Stability
Stable at normal conditions of use.

Possibility of hazardous reactions
Not determined

Hazardous decomposition products
Not applicable.

Conditions to avoid
Not applicable.

Materials to avoid
Strong Oxidizing Agent

SECTION 11 TOXICOLOGICAL INFORMATION

Ingredient Name: Calcium hypochlorite, dry, granular

Effects on humans:
Inhalation:
- Corrosive. Extremely destructive to tissues of the mucous membranes and upper respiratory tract. Symptoms may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. Inhalation may be fatal as a result of spasm inflammation and edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema.

Ingestion:
- Corrosive. Swallowing can cause severe burns of the mouth, throat, and stomach. Can cause sore throat, vomiting, diarrhea.

Skin Contact:
- Corrosive. Symptoms of redness, pain, and severe burn can occur.

Eye Contact:
- Corrosive. Contact can cause blurred vision, redness, pain and severe tissue burns.

Acute toxicity: Acute oral toxicity (LD50): 850 mg/kg [Rabbit]

Skin corrosion/irritation: Corrosive

Serious eye damage/irritation: Corrosive

Carcinogenicity: Not classified as a carcinogen under IARC.

Chronic/Other toxicological information:
Repeated exposures to calcium hypochlorite may cause bronchitis to develop with cough and/or shortness of breath

Ingredient Name: Sodium o-phenylphenate

Effects on humans:
Inhalation
- Excessive exposure may cause severe irritation to the upper respiratory tract (nose and throat). Vapor from heated material or mist may cause respiratory irritation.

Eye contact

- Corrosive to the eye resulting in burning, reddening, and swelling of the eye and surrounding tissue, in severer cases permanent injury may occur

Skin contact

- Corrosive to the skin resulting in burning, reddening, swelling and blistering.

Ingestion

- Harmful if swallowed. Swallowing may result in burns of the mouth and throat. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause serious injury, even death.

Acute toxicity: Acute oral toxicity (LD50): 846 mg/kg [Rabbit]
Acute dermal toxicity (LD50): Greater than 2000 mg/kg (Rat).
Acute gas Inhalation LC50: Greater than 1331 mg/1 (Rat), 1 hour exposure

Skin corrosion/irritation: Corrosive (Rabbits).

Serious eye damage/irritation: Corrosive (4h) (Rabbits).

Carcinogenicity: Possibly carcinogenic to humans**,** IARC Category 2b

Mutagenicity: Female mice exposed to 900 mg/kg; total dose of sodium o-phenylphenate 7-15 days after conception produced offspring with musculoskeltal defects.

[1] IARC Monographs Supplement 7, Page 392, 1987

[2] RTECS (Registry of Toxic Effects of Chemical Substances)

Chronic/Other toxicological information:

Effects of Repeated Exposure: In animals, effects have been reported on the following organs: Kidney. Liver. Bladder

SECTION 12 ECOLOGICAL INFORMATION

Toxicity
No data available

Persistence/Degradability
Not expected to bio accumulate significantly

Bio accumulative Potential
Not expected to significantly bio-accumulate

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.

SECTION 14 TRANSPORT INFORMATION

Land (ADR)

UN number	1760
UN Class	8
Subsidiary risk	NA
Packing Group	III
Proper shipping name	Corrosive liquid n.o.s. (Calcium hypochlorite)
HIN	NA

Sea (IMDG)

UN number	1760
UN Class	8
Subsidiary risk	NA
Packing Group	III
Proper shipping name	Corrosive liquid n.o.s. (Calcium hypochlorite)
Marine pollutant	Yes

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

Pollution category	NA
Ship type	IBC03
Product name	Corrosive liquid n.o.s. (Calcium hypochlorite)

Air (IATA)

UN number	1760
UN Class	8
Subsidiary risk	NA
Packing Group	III
Proper shipping name	Corrosive liquid n.o.s. (Calcium hypochlorite)

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

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA)

Ingredient	CAS #	CERCLA RQ	RDRA Code
Calcium Hypochlorite,	7778-54-3	10	-

dry, granular			
Sodium o-phenylphenate	132-27-4	-	-

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

Ingredient	Acute Hazard	Chronic Hazard	Fire Hazard	Pressure Hazard	Reactivity Hazard
Calcium Hypochlorite, dry, granular	Yes	Yes	Yes	No	Yes

This product contains the following toxic chemical(s) subject to reporting requirements of SARA Section 313 (40 CFR 372): Sodium o-phenylphenate

Canada Information
WHMIS classification: Class E-Corrosive

SECTION 16 OTHER INFORMATION

Department issuing date sheet: Vance Chemicals Quality Control and Laboratory
Original Issue date: 1st January 2010
Revision no: 03
Revision date: 27 Oct 2019

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