



# Material Safety Data Sheet

## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name/Identifier</b>	Cooling Water Treatment-NT
<b>Product Code</b>	WT3934
<b>Product Use</b>	Formulated to control microbiological slime, bacteria and algae
<b>Company Information</b>	Vance Chemicals Pte Ltd No.24 Gul Lane Singapore 629418 +65 6863 0863 <a href="mailto:msds@mr-mckenic.com">msds@mr-mckenic.com</a>
<b>Emergency Contact</b>	+65 9299 8024

## SECTION 2 HAZARDS IDENTIFICATION

### GHS CLASSIFICATION

Health		Environmental		Physical
Acute toxicity (Oral)	Category 4	Acute aquatic toxicity	Category 1	Not classified
Eye irritation	Category 2			

### GHS LABEL:



### Hazard Statements

- H301 Toxic if swallowed  
H320 Causes eye irritation  
H400 Very toxic to aquatic life

### Prevention Precautionary Statements

- P264 Wash face, hands and any exposed skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P273 Avoid release to the environment.

### 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 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P337 + P313 If eye irritation persists: Get medical advice/attention.  
P330 Rinse mouth.  
P391 Collect spillage.

### Disposal

- P405 Store locked up.



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## 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

<b>Contact with eyes</b>	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.
<b>Skin contact</b>	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.
<b>Inhalation</b>	Remove to open area for fresh air. If rapid recovery does not occur, transport to the nearest medical facility for additional treatment.
<b>Ingestion</b>	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



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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



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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>	White
<b>Odour</b>	Odourless
<b>Odour Threshold</b>	NA
<b>pH</b>	Not applicable
<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
<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>	1.10 ± 0.03
<b>Solubility in water</b>	Soluble
<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

### Reactivity/Incompatible materials

Strong oxidizers, strong acids and bases.

### Chemical Stability

Stable at normal conditions of use.



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**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



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- 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/l (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 musculoskeletal defects.

<sup>1</sup> IARC Monographs Supplement 7, Page 392, 1987

<sup>2</sup> 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



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<b>Subsidiary risk</b>	NA
<b>Packing Group</b>	III
<b>Proper shipping name</b>	Corrosive liquid n.o.s. (Calcium hypochlorite)
<b>HIN</b>	NA

## Sea (IMDG)

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

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

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

## Air (IATA)

<b>UN number</b>	1760
<b>UN Class</b>	8
<b>Subsidiary risk</b>	NA
<b>Packing Group</b>	III
<b>Proper shipping name</b>	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

### EU Information

#### **Risk Phrase:**

<b>R20/21/22</b>	Harmful by inhalation, in contact with skin and if swallowed.
<b>R36/R38</b>	Irritating to eyes and skin.
<b>R37/38</b>	Irritating to respiratory system and skin.
<b>R41</b>	Risk of serious damage to eyes.
<b>R67</b>	Vapours may cause drowsiness and dizziness.



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## Safety Phrase:

- S02** Keep out of the reach of children.
- S7** Keep container tightly closed.
- S16** Keep away from sources of ignition – No smoking
- S22** Do not breathe dust.
- S24/S25** Avoid contact with skin and eyes.
- S26** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S36/37** Wear suitable protective clothing and gloves
- S46** If swallowed, seek medical advice immediately and show this container or label.
- S61** Avoid release to the environment. Refer to special instructions/Safety data sheets.

## USA Information

### Comprehensive Environmental Response and Liability Act of 1980 (CERCLA)

<u>Ingredient</u>	<u>CAS #</u>	<u>CERCLA RQ</u>	<u>RDRA Code</u>
Calcium Hypochlorite, dry, granular	7778-54-3	10	-
Sodium o-phenylphenate	132-27-4	-	-

### 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>
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:** 1<sup>st</sup> January 2010

**Revision no:** 02

**Revision date:** 31 March 2014

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