

# Safety Data Sheet



## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name/Identifier</b>	M2000(1)
<b>Product Code</b>	WT3921(1)
<b>Product Use</b>	To prevent and reduce scale, rust, corrosion and sludge in generator systems.
<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
Serious Eye Damage Category 2	Not Classified	Not Classified
Skin Irritant Category 2		
Specific Target Organ Toxicity – Single Exposure (CNS, Kidney, Heart, Respiratory System) Category 2		
Specific Target Organ Exposure – Repeated Exposure (CNS, Heart, Respiratory System) Category 2		
Acute Oral Toxicity Category 4		

### GHS Pictogram:



**Signal Word:** Warning

### Hazard Statements:

H302 Harmful if swallowed  
H315 Causes skin irritation  
H319 Causes serious eye irritation  
H371 May cause damage to organs

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H373 May cause damage to organs through prolonged or repeated exposure

## Precautionary Statements

### Prevention:

- P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
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:

- 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+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
P302+P352 IF ON SKIN: Wash with plenty of water.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P308+P311 If exposed or concerned: Call a POISON CENTER/doctor.  
P330 Rinse mouth.

### Storage:

- P405 Store locked up.

## SECTION 3 COMPOSITIONS / INFORMATION ON INGREDIENTS

Chemical Identity	CAS #	Weight %
Sodium Metasilicate Pentahydrate	10213-79-3	<3
Ethylene Glycol	107-21-1	<65
Sodium Nitrite	7632-00-0	<5
Sodium tolytriazole 50%	64665-57-2	<1
Non-hazardous materials	Mixture	>10

## 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 from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

### Ingestion

If swallowed, do not induce vomiting; transport to nearest medical facility for additional treatment.

## SECTION 5 FIRE FIGHTING MEASURES

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## **Suitable Extinguishing Media**

Use water spray, fog or foam to cool fire exposed surfaces and to protect personnel.

## **Unsuitable Extinguishing Media**

Straight streams of water.

## **Specific Hazards Arising from the Chemical**

Oxides of carbon, smoke, fume, incomplete combustion products.

## **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. Use water spray to cool fire exposed surfaces and to protect personnel.

## **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**

Large Spills: Dyke far ahead of liquid spill for later recovery and disposal.

Prevent discharges into the environment (sewers, rivers, soils), basements or confined areas. Immediately notify the appropriate authorities in case of discharge.

Land Spill: Stop leak if you can do so without risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, basements or confined areas. Vapour-suppressing foam may be used to reduce vapour. Use clean non-sparking tools to collect absorbed material. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Large Spills: Water spray may reduce vapour, but may not prevent ignition in enclosed spaces. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do so without risk. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants. Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

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**

Avoid contact with skin and eyes. Prevent product vapours decomposition from contacting hot spots. Prevent product vapours decomposition from electric arc action (welding). Preferably transfer by pump or gravity. Use only equipment and materials which are compatible with the product. Keep away from heat and sources of ignition. Keep away from incompatible products.

### **Conditions for Safe Storage**

Keep container dry. Keep in a cool, well-ventilated place. Open slowly in order to control possible pressure release. 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. Combustible materials should be stored away from extreme

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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
Sodium tetraborate decahydrate	5 mg/m <sup>3</sup>	Not Established	5 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>
Sodium nitrite	Not Established	Not Established	Not Established	Not Established
Sodium tolytriazole 50%	Not Established	Not Established	Not Established	Not Established

### Personal Protective Equipment (PPE):

#### Eye Protection

Wear protective goggles for all industrial operations. If risk of splashing, chemical proof goggles/face shield.

#### Skin Protection

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

#### 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	Red
Odour	Odourless
Odour Threshold	NA
pH	11.5-12.5
Melting Point/ Freezing Point (°C)	-48.3
Initial boiling point and range (°C)	110
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



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<b>Upper/lower Flammability (Explosive) Limits:</b>	Not determined
<b>Vapour Density</b>	Not determined
<b>Relative Density</b>	1.11 ± 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 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<sub>mix</sub>)

Acute oral toxicity (LD50): 1960 mg/kg

Acute dermal toxicity (LD50): 4984 mg/kg

Inhalation toxicity (LC50): Data not available

**Carcinogenicity:** None of the ingredients are listed under IARC.

## SECTION 12 ECOLOGICAL INFORMATION

### 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

### 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 : Not Regulated  
UN Class : NA  
Subsidiary Risk : NA  
Packing Group : NA  
Proper Shipping Name : NA  
HIN : NA

### **Sea (IMDG)**

UN Number : Not Regulated  
UN Class : NA  
Subsidiary Risk : NA  
Packing Group : NA  
Proper Shipping Name : NA  
HIN : NA

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

Pollution Category : NA  
Ship Type : NA  
Product Name : NA

### **Air (IATA)**

UN Number : Not Regulated  
UN Class : NA  
Subsidiary Risk : NA  
Packing Group : NA  
Proper Shipping Name : NA

### **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



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## **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.

## **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:** 24<sup>th</sup> February 2011

**Revision no:** 04

**Revision date:** 17 September 2020

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