Safety Data Sheet

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Product Name/Identifier	Boiler Conditioner (2)
Product Code	WT3920(2)
Product Use	Prevent and reduce scale, rust, oxygen pitting, corrosion and sludge in boiler systems.
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
Eye irritation	Category 2	Not Classified	Not Classified
Skin irritation	Category 2		

GHS LABEL:

Signal Word: Warning

Hazard Statements:
H315 Causes skin irritation
H319 Causes serious eye irritation

Precautionary Statements
Prevention:
P264 Wash thoroughly after handling
P280 Wear protective gloves.

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
P302+P352	IF ON SKIN: Wash with plenty of soap and water
P337+P313	If eye irritation persists: Get medical advice/attention.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362	Take off contaminated clothing and wash before use.

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

SECTION 3 COMPOSITIONS / INFORMATION ON INGREDIENTS

Chemical Identity	CAS #	Weight %
Sodium nitrite	7632-00-0	<1
Sodium tetraborate decahydrate	1303-96-4	<1
Sodium tolytriazole 50%	64665-57-2	<1
Non-hazardous materials	Mixture	>98

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

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 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 nitrite	Not Established	Not Established	Not Established	Not Established
Sodium tetraborate decahydrate	5 mg/m3	Not Established	5 mg/m^3	10 mg/m^3
Sodium tolytriazole 50%	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

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	Clear
Odour	Odourless
Odour Threshold	NA
pH	8 - 10
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
Upper/lower Flammability (Explosive) Limits:	Not determined
Vapour Pressure	Not determined
Vapour Density	Not determined
Relative Density	1.03 ± 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 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): >5000 mg/kg [Rat].
Acute dermal toxicity (LD50): >5000 mg/kg [Rabbit].
Inhalation toxicity (LC50): Data not available.

Carcinogenicity: None of the ingredients are listed under IARC.

SECTION 12 ECOLOGICAL INFORMATION

Toxicity
Aquatic Toxicity (Summation method)
(Mx100xAcute1)+(10xAcute2) ≥ 25%

Bio accumulative Potential
Not expected to bio-accumulate significantly

Mobility in soil
Liquid is mobile on 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.

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

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: 1st January 2010
Revision No: 03
Revision date: 17 September 2020

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