



SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : **Biocop TF**
Product form : liquid
Other means of identification : 1231-1 Grey

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Antifouling

1.3. Details of the supplier of the safety data sheet

Akzo Nobel Pty Limited
51 McIntyre Road
PO Box 26
SUNSHINE NORTH, VIC, 3020, AUSTRALIA
Office number +61 (03) 9313 4555
Emergency number 1800 680 071

1.4. Emergency telephone numbers

For Hazardous Materials [or Dangerous Goods] Incident spill, leaks, fire, Exposure, or Accident

Call CHEMTREC 24 hours 7 days per week

Emergency number : CHEMTREC Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

Emergency number : CHEMTREC Within USA and Canada: 1-800-424-9300 CCN155

Emergency number : Australia Poisons Information Centre 13 11 26

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

This material is hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification (GHS)

Flammable Liquid 3	H226
Acute Toxicity 4 (oral)	H302
Aspiration Toxicity 1	H304
Eye Damage 1	H318
Skin Sensitisation 1	H317
Mutagenicity 1A	H340
Carcinogenicity 1A	H350
Aquatic Chronic Toxicity 1	H410
Aquatic Acute Toxicity 1	H400

2.2. Label elements

GHS

Hazard pictograms (GHS)



Signal word (GHS) : **Danger**

Hazard statements (GHS) : H226 - Flammable liquid and vapor

Biocop TF

Safety Data Sheet

H302 - Harmful if swallowed
H304- May be fatal if swallowed and enters airways
H317- May cause an allergic skin reaction
H318- Causes serious eye damage
H340 - May cause genetic defects
H350- May cause cancer
H400- Very toxic to aquatic life
H410- Very toxic to aquatic life with long lasting effects

Precautionary statements (GHS) :

P201 – Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood
P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking
P233 – Keep container tightly closed
P240 - Ground and bond container and receiving equipment.
P241 - Use explosion proof equipment.
P242 – Use non-sparking tools.
P243 – Take action to prevent static discharge.
P261 - Avoid breathing dust/fume/mist/vapors/spray
P264 – Wash face, hands and forearms thoroughly after handling
P270 – Do not eat, drink, or smoke when using this product
P272 – Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment
P280 - Wear eye protection, protective clothing, protective gloves, face protection
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P302+P352 - IF ON SKIN: wash with plenty of soap and water
P303+P353+P361+P364- IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash before reuse. Rinse skin with water.
P305+P351+P338- IF IN EYE: Rinse continuously with water for several minutes. Remove contact lense if present and easy to do- continue rinsing
P308+P313 - If exposed or concerned: Get medical advice/attention
P310 – Immediately call a POISON CENTER or doctor if in eyes.
P321 - Specific treatment (see first aid instructions on this label)
P330 - Rinse mouth.
P331 – Do NOT induce vomiting
P333+P313- If skin irritation or a rash occurs: Get medical advice/attention
P362+P364- Take off contaminated clothing and wash before use
P370+P378 – In case of fire: Use carbon dioxide, dry powder, alcohol-resistant foam or water spray to extinguish.
P391- Collect spillage
P403 + P235 - Store in a well ventilated place. Keep Cool.
P405- Store locked up
P501 - Dispose of contents/container to licensed waste handling facility

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Substance type:

: Multi-constituent

Name	Product identifier	%
Solvent naphtha(petroleum), light aromatic	(CAS No) 64742-95-6	10-25
Ethylbenzene	(CAS No) 100-41-4	0.01 - 1
Cupric oxide	(CAS No) 1317-38-0	3-10
Zinc oxide	(CAS No) 1314-13-2	1-10
Cuprous oxide	(CAS No) 1317-39-1	35-50
Zinc pyrithione	(CAS No) 13463-41-7	4-10
Cumene	(CAS No) 98-82-8	0.1-1
Pseudocumene	(CAS No) 95-63-6	5-10
Xylene	(CAS No) 1330-20-7	0.1-1
Rosin x50	(CAS No) 8050-09-7	5-10
Amorphous Silica	(CAS No) 7631-86-9	0.1-1
C18-28 Long Chain Chlorinated Paraffins	(CAS No) 63449-39-8	0.1-1

Biocop TF

Safety Data Sheet

Name	Product identifier	%
Talc	(CAS No) 14807-96-6	5-10
Crystalline silica (quartz)	(CAS No) 14808-60-7	0.1-1
2-Pyridol, 1-Oxide	(CAS No) 13161-30-3	0.1-1

SECTION 4: First aid measures

Speed in treatment is essential. If poisoning occurs, contact a Poisons Information Centre. Phone Australia 131 126; New Zealand 0800 764 766 or a doctor. Have this SDS or the label with you.

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
Inhalation:	: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.
Skin contact:	: IF ON SKIN: Immediately rinse with plenty of water (for at least 15 minutes). Get immediate medical advice/attention.
Eye contact:	: IF IN EYES: Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). Get medical advice/attention.
Ingestion:	: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.
First aid facilities:	: Eyewash and normal washroom facilities.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation	: May be fatal if swallowed and enters airways.
Symptoms/injuries after skin contact	: May cause an allergic skin reaction.
Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: Harmful if swallowed.
Chronic symptoms	: May cause cancer.

4.3. Indication of any immediate medical attention and special treatment needed

Obtain medical assistance.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Carbon dioxide. Dry powder. Alcohol-resistant foam. Water spray.
Hazchem code:	•3Y

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Flammable liquid and vapor. May produce carbon oxides under fire conditions.
Explosion hazard	: Product is not explosive.
Reactivity	: No dangerous reactions known under normal conditions of use.

5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained breathing apparatus and protective suit (see Section 8).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Evacuate area. Keep upwind. Ventilate area. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).
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6.1.1. For non-emergency personnel

Protective equipment	: Wear protective equipment as described in Section 8.
Emergency procedures	: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment	: Wear suitable protective clothing, gloves and eye or face protection. Wear approved supplied-air respirator, in case of emergency.
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6.2. Environmental precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
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Biocop TF

Safety Data Sheet

Methods for cleaning up : Exclude sources of ignition and ventilate the area. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13). Waste from this product may be hazardous.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Do not breathe mists. Keep away from sources of ignition - No smoking. Use appropriate personal protection equipment (PPE).

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Heat sources. Keep container closed when not in use.

Storage temperature < 38 °C (100°F)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No value assigned for this specific material by Safe Work Australia, however following are the exposure standards for the individual hazardous components as available and published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants and/or as set by overseas occupational exposure limits:

Cumene (98-82-8)	
Workplace Exposure Standards (Australia)	TWA 25 ppm (125 mg/m ³) STEL 75 ppm (375 mg/m ³)
ACGIH (TWA) (ppm)	50 ppm
OSHA PEL (TWA) (mg/m ³)	245 mg/m ³
Xylenes (o-, m-, p- isomers) (1330-20-7)	
Workplace Exposure Standards (Australia)	TWA 80 ppm (350 mg/m ³) STEL 150 ppm (655 mg/m ³)
Workplace Exposure Limits (UK – HSE)	TWA 50 ppm (220 mg/m ³) STEL 100 ppm (441 mg/m ³) Note 'Sk' – can be absorbed through skin. Note 'BMGV' - 650 mmol methyl hippuric acid/mol creatinine in urine; Post shift
ACGIH TWA (ppm)	100 ppm
ACGIH STEL (ppm)	150 ppm
OSHA PEL (TWA) (mg/m ³)	435 mg/m ³
OSHA PEL (TWA) (ppm)	100 ppm
OSHA PEL (STEL) (mg/m ³)	655 mg/m ³
OSHA PEL (STEL) (ppm)	150 ppm
Ethylbenzene (100-41-4)	
Workplace Exposure Standards (Australia)	TWA 100 ppm (434 mg/m ³) STEL 125 ppm (543 mg/m ³)
ACGIH TWA (ppm)	20 ppm
Remark (ACGIH)	upper respiratory tract irritation; kidney damage (nephropathy); cochlear impairment
OSHA PEL (TWA) (mg/m ³)	435 mg/m ³
OSHA PEL (TWA) (ppm)	100 ppm
OSHA PEL (STEL) (mg/m ³)	545 mg/m ³
OSHA PEL (STEL) (ppm)	125 ppm
Rosin (8050-09-7)	
Workplace Exposure Limits (UK – HSE)	TWA 0.05 mg/m ³ STEL 0.15 mg/m ³ Note 'Sk' – can be absorbed through skin.
Remark (ACGIH)	OELs not established
Silica, amorphous (7631-86-9)	
Workplace Exposure Standards (Australia)	TWA 2 mg/m ³ (respirable dust) Note 'Carc. 1A' – Known to have carcinogenic potential.

Biocop TF

Safety Data Sheet

Cumene (98-82-8)	
Remark (ACGIH)	OELs not established
OSHA PEL (TWA) (ppm)	20 mppcf (80)/(% SiO ₂) mg/m ³
Silica: Crystalline, quartz (14808-60-7)	
Workplace Exposure Standards (Australia)	TWA 0.05 mg/m ³ (respirable dust) Note 'Carc. 1A' – Known to have carcinogenic potential.
ACGIH TWA (mg/m ³)	0.025 mg/m ³ (respirable fraction)
OSHA PEL (TWA) (mg/m ³)	(10)/(%SiO ₂ + 2) total dust; (10)/(%SiO ₂ + 2) respirable fraction
OSHA PEL (TWA) (ppm)	(250)/(%SiO ₂ + 5) respirable fraction
Talc (14807-96-6)	
Workplace Exposure Standards (Australia)	TWA 2.5 mg/m ³ (containing no asbestos fibres)
ACGIH TWA (mg/m ³)	2
ACGIH TWA (mg/m ³)	2 mg/m ³ particulate matter containing no asbestos and <1% crystalline silica, respirable fraction
OSHA PEL (TWA) (ppm)	20 mppcf if 1% Quartz or more, use Quartz limit
Zinc oxide (1314-13-2)	
Workplace Exposure Standards (Australia)	TWA 10 mg/m ³ (dust) TWA 5 mg/m ³ (fume) STEL 10 mg/m ³ (fume)
ACGIH TWA (mg/m ³)	2 mg/m ³ (respirable fraction)
ACGIH STEL (mg/m ³)	10 mg/m ³ (respirable fraction)
Remark (ACGIH)	Metal fume fever
OSHA PEL (TWA) (mg/m ³)	5 mg/m ³ (respirable fraction)
OSHA PEL (STEL) (mg/m ³)	10 mg/m ³ (fume)

8.2. Exposure controls

Appropriate engineering controls

: Ensure adequate ventilation, especially in confined areas. Handle with good industrial hygiene and safety.

Personal protective equipment

: Face shield. Respiratory protection of the dependent type. Gloves. Protective goggles. Protective clothing.



Hand protection

: Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Natural rubber ("latex"), Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl.

Eye protection

: Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles.

Skin and body protection

: Wear long sleeves. Handle with gloves

Respiratory protection

: An approved organic vapor respirator/supplied air or self-contained breathing apparatus must be used when vapor concentration exceeds applicable exposure limits.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Grey
Odour	: Aromatic odour.
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Initial Boiling point	: No data available
Boiling Range	: No data available
Flash point	: 38°C
Flammability	: No data available
Upper/lower flammability or explosive limits	: No data available

Biocop TF

Safety Data Sheet

Vapor pressure	: Not Measured
Relative vapor density at 20 °C	: Heavier than air
Relative density	: 2.09 g/ml at 25°C
Solubility	: Water: None
Partition coefficient n-octanol/water	: No data available
Auto ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Upon combustion:CO and CO₂ are formed.Reacts violently with strong oxidizers: increased risk of fire/explosion. Reacts with some acids.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

Vapours may form explosive mixture with air.

10.4. Conditions to avoid

Sparks. Heat. Open flame. Extremes of temperature and direct sunlight.

10.5. Incompatible materials

Avoid contact with : Strong oxidizing agents.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

No toxicological data is available for the formulation. The acute toxicity of the ingredients is presented below:

Copper(I) oxide (1317-39-1)	
LD50 oral rat	470 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat (mg/l)	5 mg/l/4h dust
Solvent naphtha, petroleum, light aromatic (64742-95-6)	
LD50 oral rat	8400 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 5.2 mg/l/4h
LC50 inhalation rat (ppm)	3400 ppm/4h
Cumene (98-82-8)	
LD50 oral rat	1400 mg/kg
LD50 dermal rabbit	12300 µg/kg
LC50 inhalation rat (ppm)	> 3577 ppm 6 h
Benzene, 1,2,4-trimethyl- (95-63-6)	
LD50 oral rat	3400 mg/kg
LD50 dermal rabbit	> 3160 mg/kg
LC50 inhalation rat (mg/l)	18 g/m ³ 4h
Xylenes (o-, m-, p- isomers) (1330-20-7)	
LD50 oral rat	3500 mg/kg
LD50 dermal rat	> 29.08 mg/kg
LC50 inhalation rat (mg/l)	29.08 mg/l/4h vapor
Ethylbenzene (100-41-4)	
LD50 oral rat	3500 mg/kg
LD50 dermal rabbit	15400 mg/kg
LC50 inhalation rat (mg/l)	17.2 mg/l/4h
Rosin (8050-09-7)	
LD50 oral rat	7600 mg/kg

Biocop TF

Safety Data Sheet

Copper(I) oxide (1317-39-1)	
LD50 dermal rabbit	> 2500 mg/kg
LC50 inhalation rat (mg/l)	1.5 mg/l/4h
Silica, amorphous (7631-86-9)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 2.2 mg/l 1h
Silica: Crystalline, quartz (14808-60-7)	
LD50 oral rat	500 mg/kg
Zinc oxide (1314-13-2)	
LD50 oral rat	> 5000 mg/kg
Zeolite (1318-02-1)	
LD50 oral rat	5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	2.4 mg/l 1 h
Zinc pyrithione (13463-41-7)	
LC50 inhalation rat (mg/l)	140 mg/m ³ 4 h

Acute Toxicity - oral	:	Harmful if swallowed.
Acute Toxicity – dermal	:	Not Applicable,Not classified
Acute Toxicity - inhalation	:	Not Applicable,Not classified
Skin damage/irritation	:	Not Applicable,Not classified
Eye damage/irritation	:	Causes serious eye damage.
Respiratory or skin sensitization	:	May cause an allergic skin reaction.
Germ cell mutagenicity	:	May cause genetic defects, category 1B
Carcinogenicity	:	May cause cancer, category 1A.
Reproductive toxicity	:	Not Applicable,Not classified
Specific target organ toxicity (single exposure)	:	Not Applicable,Not classified
Specific target organ toxicity (repeated exposure)	:	Not Applicable,Not classified
Aspiration hazard	:	May be fatal if swallowed and enters airways, category 1
Chronic health effects:	:	May cause cancer.

SECTION 12: Ecological information

12.1. Ecotoxicity

No ecotoxicity data is available for the formulation. The ecotoxicity of the ingredients is presented below:

Cuprous oxide (1317-39-1)	
LC50 fishes 1	0.075 mg/l (96 h; danio rerio)
EC50 daphnia 1	0.042 mg/l (48 h; Daphnia similis)
Threshold limit algae 1	0.03 mg/l (96 h; Pseudokirchneriella subcapitata)

Zinc oxide (1314-13-2)	
LC50 fishes 1	1.10 mg/l (96 h; Oncorhynchus mykiss)
EC50 daphnia 1	0.098 mg/l (48 h; Daphnia magna)
Threshold limit algae 1	0.042 mg/l (72 h; Pseudokirchneriella subcapitata)

Zinc pyrithione (13463-41-7)	
LC50 fishes 1	0.0026 mg/l (96 h; Pimephales promelas)
EC50 daphnia 1	0.0082 mg/l (48 h; Daphnia magna)
Threshold limit algae 1	0.028 mg/l (96 h; Selenastrum capricornutum)

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Other adverse effects

PBT/vPvB assessment not available as chemical safety assessment not required/ not conducted

Biocop TF

Safety Data Sheet

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13: Disposal considerations

13.1. Disposal methods

Treatment methods : Do not discharge to public wastewater systems without permit of pollution control authorities. No discharge to surface waters is allowed without a permit.

Disposal recommendations : Refer to Waste Management Authority. Crush and dispose of empty containers in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

SECTION 14: Transport information

14.1. Road and Rail Transport - Australian Dangerous Goods Code (ADG Code) 7th Edition for transport by Road and Rail

UN number : 1263

UN proper shipping name : PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler, and liquid lacquer base)

Hazard Classes : Class 3 - Flammable liquid

Packing group : III

Hazchem Code : •3Y

14.2. Marine Transport - International Maritime Dangerous Goods Code (IMDG Code) for transport by sea

UN Number : 1263

UN proper shipping name : PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler, and liquid lacquer base)

Hazard Class : 3- Flammable liquid

Packaging Group : III

EmS-No.(1) : F-E

EmS-No.(2) : S-E

Marine Pollutant : Yes

14.3. Air Transport (IATA Code) - the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air

UN Number : 1263

UN proper shipping name : PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler, and liquid lacquer base)

Hazard Class : 3- Flammable liquid

Packaging Group : III

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Poison Schedule (SUSMP) : S6

APVMA : 64185

AICIS : All the constituents of this material are either listed on the Australian Inventory of Industrial Chemicals (AIIC), not required due the nature of the chemical as they are excluded as an industrial chemical or have been assessed under the Industrial Chemicals (Notification and Assessment) Act 1989 as amended.

SECTION 16: Other information

In any event, the review and, if necessary, the re-issue of an SDS shall be no longer than 5 years after the last date of issue.

General Information : None

Reason(s) for Issue: : First issue and general compliance with Australian WHS Regulations for the preparation of safety data sheets.

Other information : None

Biocop TF

Safety Data Sheet

Key abbreviations or acronyms used:	ADG Code - Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition) AICIS – Australian Industrial Chemicals Introduction Scheme (formerly NICNAS) AIIC - Australian Inventory of Industrial Chemicals APVMA – Agricultural Pesticides and Veterinary Medicines Australia GHS - Globally Harmonised System of Classification and Labelling of Chemicals (7th revised edition) 2017 HSE (UK) – Health and Safety Executive (UK) IARC - International Agency for Research on Cancer Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (July 2020) STEL - Short term exposure limit means the average airborne concentration of a substance calculated over a 15-minute period. The STEL should not be exceeded at any time during a normal eight hour working day. SUSMP - Standard for the Uniform Scheduling of Medicines & Poisons SWA - Safe Work Australia, formerly ASCC and NOHSC TGA – Therapeutic Goods Australia TWA - Time-weighted average means the average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week. WHS – Workplace Health and Safety
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The information on this Data Sheet represents our current data and best opinion as to the proper use in handling of this material under normal conditions. Any use of the material which is not in conformance with this Data Sheet or which involves using this material in combination with any other material or any other process is the responsibility of the user. All materials present unknown health hazards and should be used with caution. Although certain hazards are described herein, the manufacturer and its agents cannot guarantee that these are the only hazards which exist. Further, the manufacturer and its agents assume no responsibility for personal injury or property damage to vendors, users, or third-parties caused by this material. User assumes all risks associated with the use of this material. No warranty, express or implied, is made and New Nautical Coatings, Inc assumes no liability resulting from the use of this SDS. The user must determine suitability of this information for his application.