



TIMBRE PLUS VERTICAL

Mirotone

Chemwatch: 84-8879

Version No: 5.1.1.1

Safety Data Sheet according to WHS and ADG requirements

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S.GHS.AUS.EN.RISK

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

Product Identifier

Product name	TIMBRE PLUS VERTICAL
Synonyms	TIMBRE PLUS VERTICAL; Product code: 4520; NOTE: In addition to the primary colours listed above, this product may be tinted (colour matched); in an infinite colour range. Each customised / colour matched version of this product is assigned a unique colour number / reference and a colour name. All colour matched versions of this product conform to the "Composition" in Section 3 of this Safety Data Sheet.
Other means of identification	Not Available

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

Relevant identified uses	For full details on application and properties consult the technical datasheet. Exterior timber such as doors and windows, weatherboards, cladding, garage doors, feature walls and outdoor furniture.
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Details of the supplier of the safety data sheet

Registered company name	Mirotone
Address	21 Marigold Street Revesby NSW 2212 Australia
Telephone	+61 2 9795 3700
Fax	+61 2 9771 3601
Website	www.mirotone.com, www.polycure.com.au
Email	Not Available

Emergency telephone number

Association / Organisation	CHEMWATCH EMERGENCY RESPONSE
Emergency telephone numbers	+61 2 9186 1132
Other emergency telephone numbers	+61 1800 951 288

Once connected and if the message is not in your preferred language then please dial 01

SECTION 2 Hazards identification

Classification of the substance or mixture

NON-HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

Poisons Schedule	Not Applicable
Classification [1]	Chronic Aquatic Hazard Category 3 <i>*LIMITED EVIDENCE</i>
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

Label elements

Hazard pictogram(s)	Not Applicable
Signal word	Not Applicable

Hazard statement(s)

H412	Harmful to aquatic life with long lasting effects.
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**LIMITED EVIDENCE*

Precautionary statement(s) General

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read label before use.

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Precautionary statement(s) Prevention

P273	Avoid release to the environment.
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Precautionary statement(s) Response

Not Applicable

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.
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SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
63148-69-6	10-30	<u>alkyd resin - unregulated</u>
34590-94-8	<2	<u>dipropylene glycol monomethyl ether</u>
9043-30-5	<0.5	<u>isotridecyl alcohol, ethoxylated</u>
41556-26-7	<0.5	<u>bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate</u>
Not Available	<0.5	Tinuvin 1130
121-44-8	<0.5	<u>triethylamine</u>
Not Available	<0.2	Tinuvin 213
82919-37-7	<0.2	<u>methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate</u>
55406-53-6	<0.2	<u>3-iodo-2-propynyl butyl carbamate</u>
68439-45-2	<0.1	<u>alcohols C6-C12 ethoxylated</u>
Not Available	<0.1	isothiazolinones
22464-99-9	<0.1	<u>zirconium 2-ethylhexanoate</u>
366-18-7	<0.05	<u>2,2'-bipyridyl</u>
Not Available	balance	Ingredients determined not to be hazardous

SECTION 4 First aid measures

Description of first aid measures

Eye Contact	<p>If this product comes in contact with eyes:</p> <ul style="list-style-type: none"> ▶ Wash out immediately with water. ▶ If irritation continues, seek medical attention. ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	<p>If skin contact occurs:</p> <ul style="list-style-type: none"> ▶ Immediately remove all contaminated clothing, including footwear. ▶ Flush skin and hair with running water (and soap if available). ▶ Seek medical attention in event of irritation.
Inhalation	<ul style="list-style-type: none"> ▶ If fumes, aerosols or combustion products are inhaled remove from contaminated area. ▶ Other measures are usually unnecessary.
Ingestion	<ul style="list-style-type: none"> ▶ Immediately give a glass of water. ▶ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Firefighting measures

Extinguishing media

The product contains a substantial proportion of water, therefore there are no restrictions on the type of extinguishing media which may be used. Choice of extinguishing media should take into account surrounding areas.

Though the material is non-combustible, evaporation of water from the mixture, caused by the heat of nearby fire, may produce floating layers of combustible substances.

In such an event consider:

- ▶ foam.
- ▶ dry chemical powder.

Special hazards arising from the substrate or mixture

Fire Incompatibility	None known.
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Advice for firefighters

Fire Fighting	<ul style="list-style-type: none"> ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ Wear breathing apparatus plus protective gloves in the event of a fire.
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	<ul style="list-style-type: none"> ▶ Prevent, by any means available, spillage from entering drains or water courses. ▶ Use fire fighting procedures suitable for surrounding area. ▶ DO NOT approach containers suspected to be hot.
Fire/Explosion Hazard	<ul style="list-style-type: none"> ▶ The material is not readily combustible under normal conditions. ▶ However, it will break down under fire conditions and the organic component may burn. ▶ Not considered to be a significant fire risk. ▶ Heat may cause expansion or decomposition with violent rupture of containers. ▶ Decomposes on heating and may produce toxic fumes of carbon monoxide (CO). <p>Decomposes on heating and produces toxic fumes of: carbon dioxide (CO₂) nitrogen oxides (NO_x) other pyrolysis products typical of burning organic material. May emit poisonous fumes.</p>
HAZCHEM	Not Applicable

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	<ul style="list-style-type: none"> ▶ Clean up all spills immediately. ▶ Avoid breathing vapours and contact with skin and eyes. ▶ Control personal contact with the substance, by using protective equipment. ▶ Contain and absorb spill with sand, earth, inert material or vermiculite. ▶ Wipe up.
Major Spills	<p>Moderate hazard.</p> <ul style="list-style-type: none"> ▶ Clear area of personnel and move upwind. ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ Wear breathing apparatus plus protective gloves. ▶ Prevent, by any means available, spillage from entering drains or water course.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling	<ul style="list-style-type: none"> ▶ DO NOT allow clothing wet with material to stay in contact with skin ▶ Avoid all personal contact, including inhalation. ▶ Wear protective clothing when risk of exposure occurs. ▶ Use in a well-ventilated area. ▶ Prevent concentration in hollows and sumps. ▶ DO NOT enter confined spaces until atmosphere has been checked.
Other information	<ul style="list-style-type: none"> ▶ Store in original containers. ▶ Keep containers securely sealed. ▶ Store in a cool, dry, well-ventilated area. ▶ Store away from incompatible materials and foodstuff containers. ▶ Protect containers against physical damage and check regularly for leaks.

Conditions for safe storage, including any incompatibilities

Suitable container	<ul style="list-style-type: none"> ▶ Polyethylene or polypropylene container. ▶ Packing as recommended by manufacturer. ▶ Check all containers are clearly labelled and free from leaks.
Storage incompatibility	None known

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	dipropylene glycol monomethyl ether	(2-Methoxymethylethoxy) propanol	50 ppm / 308 mg/m ³	Not Available	Not Available	Not Available
Australia Exposure Standards	triethylamine	Triethylamine	2 ppm / 8 mg/m ³	17 mg/m ³ / 4 ppm	Not Available	Not Available
Australia Exposure Standards	zirconium 2-ethylhexanoate	Zirconium compounds (as Zr)	5 mg/m ³	10 mg/m ³	Not Available	Not Available

Emergency Limits

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
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Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
dipropylene glycol monomethyl ether	Dipropylene glycol methyl ether	150 ppm	1700* ppm	9900** ppm
triethylamine	Triethylamine	1 ppm	170 ppm	1,000 ppm
3-iodo-2-propynyl butyl carbamate	Butyl-3-iodo-2-propynylcarbamate	3.3 mg/m3	36 mg/m3	220 mg/m3

Ingredient	Original IDLH	Revised IDLH
alkyd resin - unregulated	Not Available	Not Available
dipropylene glycol monomethyl ether	600 ppm	Not Available
isotridecyl alcohol, ethoxylated	Not Available	Not Available
bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate	Not Available	Not Available
triethylamine	200 ppm	Not Available
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Not Available	Not Available
3-iodo-2-propynyl butyl carbamate	Not Available	Not Available
alcohols C6-C12 ethoxylated	Not Available	Not Available
zirconium 2-ethylhexanoate	25 mg/m3	Not Available
2,2'-bipyridyl	Not Available	Not Available


Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
isotridecyl alcohol, ethoxylated	E	≤ 0.1 ppm
bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate	D	> 0.1 to ≤ 1 ppm
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	D	> 0.1 to ≤ 1 ppm
3-iodo-2-propynyl butyl carbamate	E	≤ 0.01 mg/m ³
alcohols C6-C12 ethoxylated	E	≤ 0.1 ppm
2,2'-bipyridyl	E	≤ 0.01 mg/m ³

Notes:

Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.

Exposure controls

Appropriate engineering controls	<p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly.</p>
Personal protection	
Eye and face protection	<ul style="list-style-type: none"> ▶ Safety glasses with side shields. ▶ Chemical goggles. ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience.
Skin protection	See Hand protection below
Hands/feet protection	<ul style="list-style-type: none"> ▶ Wear chemical protective gloves, e.g. PVC. ▶ Wear safety footwear or safety gumboots, e.g. Rubber <p>NOTE:</p> <ul style="list-style-type: none"> ▶ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. ▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed. <p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p> <p>Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands.</p>
Body protection	See Other protection below
Other protection	<ul style="list-style-type: none"> ▶ Overalls. ▶ P.V.C apron. ▶ Barrier cream. ▶ Skin cleansing cream.

▶ Eye wash unit.

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the **computer-generated** selection:

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Material	CPI
BUTYL	C
HYPALON	C
NAT+NEOPR+NITRILE	C
NATURAL RUBBER	C
NATURAL+NEOPRENE	C
NEOPRENE	C
NEOPRENE/NATURAL	C
NITRILE	C
NITRILE+PVC	C
PE/EVAL/PE	C
PVA	C
PVC	C
SARANEX-23	C
VITON	C

* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

Respiratory protection

Type AK-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.

Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	AK-AUS P2	-	AK-PAPR-AUS / Class 1 P2
up to 50 x ES	-	AK-AUS / Class 1 P2	-
up to 100 x ES	-	AK-2 P2	AK-PAPR-2 P2 ^

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO₂), G = Agricultural chemicals, K = Ammonia(NH₃), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

- ▶ Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- ▶ The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- ▶ Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Brown to coloured low viscosity non-flammable liquid with a characteristic odour; miscible with water.		
Physical state	Liquid	Relative density (Water = 1)	0.97-1.08
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	8-10	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	430-790 @23C
Initial boiling point and boiling range (°C)	101	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	Not Applicable	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	76-84
Vapour pressure (kPa)	2.3 @23C	Gas group	Not Available
Solubility in water	Miscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	0.6	VOC g/L	31-35

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	<ul style="list-style-type: none"> ▶ Unstable in the presence of incompatible materials. ▶ Product is considered stable. ▶ Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7

Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 Toxicological information

Information on toxicological effects

Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Not normally a hazard due to non-volatile nature of product Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.
Ingestion	The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.
Skin Contact	The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting. Open cuts, abraded or irritated skin should not be exposed to this material
Eye	Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).
Chronic	Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

	TOXICITY	IRRITATION
TIMBRE PLUS VERTICAL	Not Available	Not Available
alkyd resin - unregulated	Not Available	Not Available
dipropylene glycol monomethyl ether	Oral (rat) LD50: 5135 mg/kg ^[2]	Eye (human): 8 mg - mild Eye (rabbit): 500 mg/24hr - mild Skin (rabbit): 238 mg - mild Skin (rabbit): 500 mg (open)-mild
isotridecyl alcohol, ethoxylated	Not Available	Not Available
bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate	Oral (rat) LD50: 3100 mg/kg ^[2]	Not Available
triethylamine	1000 mg/kg ^[2] Dermal (rabbit) LD50: 570 mg/kg ^[2] Oral (rat) LD50: =460 mg/kg ^[2]	Eye (rabbit): 0.25 mg/24h SEVERE Eye(rabbit): 50ppm/30d int SEVERE Skin (rabbit): 365 mg open mild
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Not Available	Not Available
3-iodo-2-propynyl butyl carbamate	dermal (rat) LD50: >2000 mg/kg ^[2] Inhalation (rat) LC50: 0.680 mg/l/4h* ^[2]	Eye: adverse effect observed (irreversible damage) ^[1] Eye: Irritating Skin: no adverse effect observed (not irritating) ^[1] Skin: Slight irritant
alcohols C6-C12 ethoxylated	Dermal (rabbit) LD50: 1500 mg/kg ^[2] Oral (rat) LD50: 5100 mg/kg ^[2]	Eye (rabbit): 58/110 moderate*(2) Skin (rabbit): 3.2/8.0 moderate*
zirconium 2-ethylhexanoate	Inhalation (rat) LC50: >2.2 mg/l/1H ^[2]	Not Available

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2,2'-bipyridyl	TOXICITY	IRRITATION
Legend:	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances	
ALKYD RESIN - UNREGULATED	"alkyd resin" describes a generic insoluble polymer which has no residual hazardous reactants and is not absorbed in the gastro-intestinal tract. No acute or chronic human exposure / toxicity data available. Almost always in solvent solution - the hazard is from the solvent.	
DIPROPYLENE GLYCOL MONOMETHYL ETHER	For propylene glycol ethers (PGEs): Typical propylene glycol ethers include propylene glycol n-butyl ether (PnB); dipropylene glycol n-butyl ether (DPnB); dipropylene glycol methyl ether acetate (DPMA) and tripropylene glycol methyl ether (TPM). Testing of a wide variety of propylene glycol ethers has shown that propylene glycol-based ethers are less toxic than some ethers of the ethylene series. The common toxicities associated with the lower molecular weight homologues of the ethylene series, such as adverse effects on the reproductive organs, the developing embryo and foetus, blood or thymus gland, are not seen with the commercial-grade propylene glycol ethers. In the ethylene series, metabolism of the terminal hydroxyl group produces and alkoxyacetic acid. The reproductive and developmental toxicities of the lower molecular weight homologues in the ethylene series are due specifically to the formation of methoxyacetic and ethoxyacetic acids. Longer chain homologues in the ethylene series are not associated with reproductive toxicity, but can cause haemolysis in sensitive species, also through formation of an alkoxyacetic acid. The predominant alpha isomer of all the PGEs (which is thermodynamically favoured during manufacture of PGEs) is a secondary alcohol incapable of forming an alkoxypropionic acid. The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.	
ISOTRIDECYL ALCOHOL, ETHOXYLATED	Polyethers (such as ethoxylated surfactants and polyethylene glycols) are highly susceptible to being oxidized in the air. They then form complex mixtures of oxidation products. Animal testing reveals that whole the pure, non-oxidised surfactant is non-sensitizing, many of the oxidation products are sensitisers. The oxidization products also cause irritation.	
TRIETHYLAMINE	Overexposure to most of these materials may cause adverse health effects. Many amine-based compounds can cause release of histamines, which, in turn, can trigger allergic and other physiological effects, including constriction of the bronchi or asthma and inflammation of the cavity of the nose. Whole-body symptoms include headache, nausea, faintness, anxiety, a decrease in blood pressure, rapid heartbeat, itching, reddening of the skin, urticaria (hives) and swelling of the face, which are usually transient. There are generally four routes of possible or potential exposure: inhalation, skin contact, eye contact, and swallowing. Inhalation: Inhaling vapours may result in moderate to severe irritation of the tissues of the nose and throat and can irritate the lungs. Higher concentrations of certain amines can produce severe respiratory irritation, characterized by discharge from the nose, coughing, difficulty in breathing and chest pain. Chronic exposure via inhalation may cause headache, nausea, vomiting, drowsiness, sore throat, inflammation of the bronchi and lungs, and possible lung damage. Repeated and/or prolonged exposure to some amines may result in liver disorders, jaundice and liver enlargement. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. Inhalation (human) TCLo: 12mg/m3/11W contin.Skin (rabbit)mild	
3-iodo-2-propynyl butyl CARBAMATE	Carbamate pesticides are less dangerous than organophosphorus pesticides. It requires higher dose to produce toxicity or mortality. However, its toxicity via skin contact is low to moderate. Its rapid metabolism causes acute toxic effect but subsequent rapid recovery. It may cause skin and eye irritation, increased pigmentation, sperm abnormalities, sensitization, cancer, mutations and genetic and foetal defects. For 3-iodo-2-propynyl butyl carbamate (IPBC): Acute toxicity studies with IPBC show low toxicity except severe eye irritation. Animal testing showed that extended exposure may cause decreased weight gain and increased red cell and eosinophil counts. One study showed the possibility of increased breast cancer on extended contact. IPBC may cause defects in bone development at very high levels. It does not reduce fertility, but it does cause reduced body weight in infants. While it is toxic to the cell at high doses, it does not seem to cause mutations or genetic damage. #551isofen For isofenphos: Isofenphos suppresses cholinesterase activity in the bloodstream.	
ALCOHOLS C6-C12 ETHOXYLATED	The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration. All rats survived a 4 hour exposure at up to 8.02 mg/l * * Van Waters and Rogers (1) for males and females combined (2) for similar product, 72 hours after exposure	
ZIRCONIUM 2-ETHYLHEXANOATE	For aliphatic fatty acids (and salts) Acute oral (gavage) toxicity: The acute oral LD50 values in rats for both were greater than >2000 mg/kg bw Clinical signs were generally associated with poor condition following administration of high doses (salivation, diarrhoea, staining, piloerection and lethargy). There were no adverse effects on body weight in any study In some studies, excess test substance and/or irritation in the gastrointestinal tract was observed at necropsy. Skin and eye irritation potential, with a few stated exceptions, is chain length dependent and decreases with increasing chain length According to several OECD test regimes the animal skin irritation studies indicate that the C6-10 aliphatic acids are severely irritating or corrosive, while the C12 aliphatic acid is irritating, and the C14-22 aliphatic acids generally are not irritating or mildly irritating. Human skin irritation studies using more realistic exposures (30-minute, 1-hour or 24-hours) indicate that the aliphatic acids have sufficient, good or very good skin compatibility. Animal eye irritation studies indicate that among the aliphatic acids, the C8-12 aliphatic acids are irritating to the eye while the C14-22 aliphatic acids are not irritating. Eye irritation potential of the ammonium salts does not follow chain length dependence; the C18 ammonium salts are corrosive to the eyes. Dermal absorption: The in vitro penetration of C10, C12, C14, C16 and C18 fatty acids (as sodium salt solutions) through rat skin decreases with increasing chain length. At 86.73 ug C16/cm2 and 91.84 ug C18/cm2, about 0.23% and less than 0.1% of the C16 and C18 soap solutions is absorbed after 24 h exposure, respectively. Sensitisation: No sensitisation data were located. Repeat dose toxicity: Repeated dose oral (gavage or diet) exposure to aliphatic acids did not result in systemic toxicity with NOAELs greater than the limit dose of 1000 mg/kg bw. . Mutagenicity Aliphatic acids do not appear to be mutagenic or clastogenic in vitro or in vivo Carcinogenicity No data were located for carcinogenicity of aliphatic fatty acids.	

	<p>Reproductive toxicity</p> <p>No effects on fertility or on reproductive organs, or developmental effects were observed in studies on aliphatic acids and the NOAELs correspond to the maximum dose tested. The weight of evidence supports the lack of reproductive and developmental toxicity potential of the aliphatic acids category.</p> <p>Fatty acid salts of low acute toxicity. Their potential to irritate the skin and eyes is dependent on chain length.</p>
2,2'-BIPYRIDYL	<p>For quaternary ammonium compounds (QACs):</p> <p>Quaternary ammonium compounds are synthetically made surfactants. Studies show that its solubility, toxicity and irritation depend on chain length and bond type while effect on histamine depends on concentration. QACs may cause muscle paralysis with no brain involvement. There is a significant association between the development of asthma symptoms and the use of QACs as disinfectant.</p> <p>Exposure to the material for prolonged periods may cause physical defects in the developing embryo (teratogenesis).</p>
TIMBRE PLUS VERTICAL & BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL)SEBACATE & METHYL 1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE & 3-iodo-2-propynyl butyl carbamate & 2,2'-BIPYRIDYL	<p>The following information refers to contact allergens as a group and may not be specific to this product.</p> <p>Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact.</p>
TIMBRE PLUS VERTICAL & ALKYD RESIN - UNREGULATED & ISOTRIDECYL ALCOHOL, ETHOXYLATED & METHYL 1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE & ZIRCONIUM 2-ETHYLHEXANOATE	<p>No significant acute toxicological data identified in literature search.</p>
DIPROPYLENE GLYCOL MONOMETHYL ETHER & TRIETHYLAMINE & 2,2'-BIPYRIDYL	<p>Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance.</p>
DIPROPYLENE GLYCOL MONOMETHYL ETHER & TRIETHYLAMINE	<p>The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.</p>
ISOTRIDECYL ALCOHOL, ETHOXYLATED & ALCOHOLS C6-C12 ETHOXYLATED	<p>Humans have regular contact with alcohol ethoxylates through a variety of industrial and consumer products such as soaps, detergents and other cleaning products. Exposure to these chemicals can occur through swallowing, inhalation, or contact with the skin or eyes. Studies of acute toxicity show that relatively high volumes would have to occur to produce any toxic response. No death due to poisoning with alcohol ethoxylates has ever been reported. Studies show that alcohol ethoxylates have low toxicity through swallowing and skin contact.</p> <p>Animal studies show these chemicals may produce gastrointestinal irritation, stomach ulcers, hair standing up, diarrhea and lethargy. Both laboratory and animal testing has shown that there is no evidence for alcohol ethoxylates (AEs) causing genetic damage, mutations or cancer. No adverse reproductive or developmental effects were observed.</p> <p>Tri-ethylene glycol ethers undergo enzymatic oxidation to toxic alkoxy acids. They may irritate the skin and the eyes. At high oral doses, they may cause depressed reflexes, flaccid muscle tone, breathing difficulty and coma. Death may result in experimental animal. However, repeated exposure may cause dose dependent damage to the kidneys as well as reproductive and developmental defects.</p>

Acute Toxicity	✗	Carcinogenicity	✗
Skin Irritation/Corrosion	✗	Reproductivity	✗
Serious Eye Damage/Irritation	✗	STOT - Single Exposure	✗
Respiratory or Skin sensitisation	✗	STOT - Repeated Exposure	✗
Mutagenicity	✗	Aspiration Hazard	✗

Legend: ✗ – Data either not available or does not fill the criteria for classification
 ✔ – Data available to make classification

SECTION 12 Ecological information

Toxicity

TIMBRE PLUS VERTICAL	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
alkyd resin - unregulated	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
dipropylene glycol monomethyl ether	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96	Fish	1-mg/L	2
	EC50	48	Crustacea	1-930mg/L	2
	EC50	72	Algae or other aquatic plants	6-999mg/L	2
	NOEC	528	Crustacea	>=0.5mg/L	2

TIMBRE PLUS VERTICAL

	Endpoint	Test Duration (hr)	Species	Value	Source	
	isotridecyl alcohol, ethoxylated	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source	
	bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate	LC50	96	Fish	=0.34mg/L	1
	Endpoint	Test Duration (hr)	Species	Value	Source	
	triethylamine	LC50	96	Fish	24mg/L	2
	EC50	48	Crustacea	17mg/L	2	
	EC50	96	Algae or other aquatic plants	1.167mg/L	2	
	NOEC	72	Algae or other aquatic plants	1.1mg/L	2	
	Endpoint	Test Duration (hr)	Species	Value	Source	
	methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Not Available	Not Available	Not Available	Not Available	
	Endpoint	Test Duration (hr)	Species	Value	Source	
	3-iodo-2-propynyl butyl carbamate	LC50	96	Fish	0.067mg/L	2
	EC50	48	Crustacea	0.04mg/L	5	
	EC50	72	Algae or other aquatic plants	0.022mg/L	2	
	EC10	72	Algae or other aquatic plants	0.0058mg/L	2	
	NOEC	72	Algae or other aquatic plants	0.0046mg/L	2	
	Endpoint	Test Duration (hr)	Species	Value	Source	
	alcohols C6-C12 ethoxylated	Not Available	Not Available	Not Available	Not Available	
	Endpoint	Test Duration (hr)	Species	Value	Source	
	zirconium 2-ethylhexanoate	LC50	96	Fish	>100mg/L	2
	EC50	48	Crustacea	>0.17mg/L	2	
	EC50	72	Algae or other aquatic plants	>0.042mg/L	2	
	NOEC	72	Algae or other aquatic plants	0.004mg/L	2	
	Endpoint	Test Duration (hr)	Species	Value	Source	
	2,2'-bipyridyl	Not Available	Not Available	Not Available	Not Available	
Legend:	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data					

For Propylene Glycol Ethers: log Kow's range from 0.309 for TPM to 1.523 for DPnB. Calculated BCFs range from 1.47 for DPnB to 3.16 for DPMA and TPM, indicating low bioaccumulation. Henry's Law Constants are low for all category members, ranging from 5.7 x 10⁻⁹ atm-m³/mole for TPM to 2.7 x 10⁻⁹ atm-m³/mole for PnB.

Environmental Fate: Most are liquids at room temperature and all are water-soluble.

Atmospheric Fate: In air, the half-life due to direct reactions with photochemically generated hydroxyl radicals, range from 2.0 hours for TPM to 4.6 hours for PnB.

For 1,2,4 - Trimethylbenzene:

Half-life (hr) air: 0.48-16;

Half-life (hr) H₂O surface water: 0.24 -672;

Half-life (hr) H₂O ground: 336-1344;

Half-life (hr) soil: 168-672;

Henry's Pa m³ /mol: 385 -627;

Bioaccumulation: not significant. 1,2,4-Trimethylbenzene is a volatile organic compound (VOC) substance.

Atmospheric Fate: 1,2,4-trimethylbenzene can contribute to the formation of photochemical smog in the presence of other VOCs. Degradation of 1,2,4-trimethylbenzene in the atmosphere occurs by reaction with hydroxyl radicals. Reaction also occurs with ozone but very slowly (half life 8820 days).

For Aromatic Substances Series:

Environmental Fate: Large, molecularly complex polycyclic aromatic hydrocarbons, or PAHs, are persistent in the environment longer than smaller PAHs.

Atmospheric Fate: PAHs are "semi-volatile substances" which can move between the atmosphere and the Earth's surface in repeated, temperature-driven cycles of deposition and volatilization. Terrestrial Fate: BTEX compounds have the potential to move through soil and contaminate ground water, and their vapors are highly flammable and explosive.

Ecotoxicity - Within an aromatic series, acute toxicity increases with increasing alkyl substitution on the aromatic nucleus. The order of most toxic to least in a study using grass shrimp and brown shrimp was dimethylnaphthalenes > methylnaphthalenes > naphthalenes.

For UV Filters:

Aquatic Fate/Ecotoxicity: UV filters have been detected in surface water, wastewater and fish, and some of them having an action similar to that of an estrogen in fish. At present, little is known about their additional hormonal activities in different hormonal receptor systems despite their increasing use and environmental persistence. Besides estrogenic activity, UV filters may have additional activities, both agonistic and antagonistic, in aquatic organisms. Although most of the UV filters exert hormonal effects at concentrations that are orders of magnitude higher than in the environment, wide distribution and exposure to UV filter mixtures may have environmental consequences due to additive effects. The UV filters 4-methylbenzylidene camphor, benzophenone-3, benzophenone-4, octyl methoxycinnamate, octocrylene and homosalate that repeatedly were detected in the aquatic environment, may contribute with their multiple hormonal activities in a complex manner to the mixture of endocrine disrupting chemicals already present in surface water and fish.

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
dipropylene glycol monomethyl ether	HIGH	HIGH

Continued...

Ingredient	Persistence: Water/Soil	Persistence: Air
triethylamine	HIGH	HIGH
3-iodo-2-propynyl butyl carbamate	HIGH	HIGH
2,2'-bipyridyl	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
dipropylene glycol monomethyl ether	LOW (BCF = 100)
triethylamine	LOW (BCF = 7.45)
3-iodo-2-propynyl butyl carbamate	LOW (LogKOW = 2.4542)
2,2'-bipyridyl	LOW (BCF = 0.7)

Mobility in soil

Ingredient	Mobility
dipropylene glycol monomethyl ether	LOW (KOC = 10)
triethylamine	LOW (KOC = 107.2)
3-iodo-2-propynyl butyl carbamate	LOW (KOC = 365.3)
2,2'-bipyridyl	LOW (KOC = 248.7)

SECTION 13 Disposal considerations**Waste treatment methods**

Product / Packaging disposal	<ul style="list-style-type: none"> ▶ Containers may still present a chemical hazard/ danger when empty. ▶ Return to supplier for reuse/ recycling if possible. <p>Otherwise:</p> <ul style="list-style-type: none"> ▶ If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. ▶ Where possible retain label warnings and SDS and observe all notices pertaining to the product. <p>Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.</p> <p>A Hierarchy of Controls seems to be common - the user should investigate:</p> <ul style="list-style-type: none"> ▶ Reduction ▶ Reuse ▶ Recycling ▶ Disposal (if all else fails) <p>This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means.</p> <ul style="list-style-type: none"> ▶ DO NOT allow wash water from cleaning or process equipment to enter drains. ▶ It may be necessary to collect all wash water for treatment before disposal. ▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. ▶ Where in doubt contact the responsible authority. ▶ Recycle wherever possible. ▶ Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. ▶ Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or incineration in a licensed apparatus (after admixture with suitable combustible material). ▶ Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.
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SECTION 14 Transport information**Labels Required**

Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

SECTION 15 Regulatory information

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

alkyd resin - unregulated is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

dipropylene glycol monomethyl ether is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

isotridecyl alcohol, ethoxylated is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australian Inventory of Industrial Chemicals (AIIC)

triethylamine is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

Australian Inventory of Industrial Chemicals (AIIC)

methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

3-iodo-2-propynyl butyl carbamate is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6

Australian Inventory of Industrial Chemicals (AIIC)

alcohols C6-C12 ethoxylated is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australian Inventory of Industrial Chemicals (AIIC)

zirconium 2-ethylhexanoate is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

2,2'-bipyridyl is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

National Inventory Status

National Inventory	Status
Australia - AIIC	Yes
Australia - Non-Industrial Use	No (alkyd resin - unregulated; dipropylene glycol monomethyl ether; isotridecyl alcohol, ethoxylated; bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate; triethylamine; methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate; 3-iodo-2-propynyl butyl carbamate; alcohols C6-C12 ethoxylated; zirconium 2-ethylhexanoate; 2,2'-bipyridyl)
Canada - DSL	No (alkyd resin - unregulated)
Canada - NDSL	No (alkyd resin - unregulated; dipropylene glycol monomethyl ether; isotridecyl alcohol, ethoxylated; bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate; triethylamine; methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate; 3-iodo-2-propynyl butyl carbamate; alcohols C6-C12 ethoxylated; zirconium 2-ethylhexanoate; 2,2'-bipyridyl)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	No (alkyd resin - unregulated)
Japan - ENCS	No (alkyd resin - unregulated; isotridecyl alcohol, ethoxylated; alcohols C6-C12 ethoxylated)
Korea - KECI	No (alkyd resin - unregulated)
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	No (alkyd resin - unregulated)
Taiwan - TCSI	Yes
Mexico - INSQ	No (isotridecyl alcohol, ethoxylated; methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate; zirconium 2-ethylhexanoate)
Vietnam - NCI	Yes
Russia - ARIPS	No (alkyd resin - unregulated; methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate)
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 Other information

Revision Date	19/11/2020
Initial Date	01/09/2017

SDS Version Summary

Version	Issue Date	Sections Updated
4.1.1.1	07/03/2020	Classification change due to full database hazard calculation/update.
5.1.1.1	19/11/2020	Ingredients, Synonyms

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or

Continued...

other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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