OneFortyOne MICROPRO (MCA) Treated Timber

OneFortyOne Wood Products

Chemwatch Hazard Alert Code: 1

Chemwatch: **5300-03**
Version No: **2.1.1.1**
Safety Data Sheet according to WHS and ADG requirements

Issue Date: **20/03/2018**
Print Date: **22/03/2018**
L.GHS.AUS.EN

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	OneFortyOne MICROPRO (MCA) Treated Timber
Synonyms	Not Available
Other means of identification	Not Available

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

Relevant identified uses	Use according to manufacturer's directions.

Details of the supplier of the safety data sheet

Registered company name	**OneFortyOne Wood Products**
Address	Jubilee Hwy East Mount Gambier SA 5290 Australia
Telephone	+61 8 8721 2777
Fax	+61 8 8721 2858
Website	https://onefortyone.com/
Email	phil.clark@onefortyone.com

Emergency telephone number

Association / Organisation	**Not Available**
Emergency telephone numbers	+61 8 8721 2777 (Mon-Fri 9am to 5pm)
Other emergency telephone numbers	Not Available

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	Not Applicable

Label elements

Hazard pictogram(s)	Not Applicable
SIGNAL WORD	NOT APPLICABLE

Hazard statement(s)

Continued...

Not Applicable

Precautionary statement(s) Prevention

Not Applicable

Precautionary statement(s) Response

Not Applicable

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

Not Applicable

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
Not Available	>95	Timber, as
Not avail.		wood dust softwood
Not avail.		wood dust hardwood
7632-00-0	<0.08	sodium nitrite
107534-96-3	<0.02	tebuconazole
12069-69-1	<2	copper carbonate basic
Not Available	<1	additives
Not Available	0.1-0.3	dispersants

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: ‣ Wash out immediately with fresh running water. ‣ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ‣ Seek medical attention without delay; if pain persists or recurs seek medical attention. ‣ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. ‣ Generally not applicable.
Skin Contact	If skin or hair contact occurs: ‣ Flush skin and hair with running water (and soap if available). ‣ Seek medical attention in event of irritation. Brush off dust. Seek medical attention in event if irritation.
Inhalation	‣ If dust is inhaled, remove from contaminated area. ‣ Encourage patient to blow nose to ensure clear passage of breathing. ‣ If irritation or discomfort persists seek medical attention.
Ingestion	‣ If swallowed do **NOT** induce vomiting. ‣ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ‣ Observe the patient carefully. ‣ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ‣ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ‣ Seek medical advice. Not normally a hazard due to physical form of product.

Continued...

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.
for copper intoxication:

- Unless extensive vomiting has occurred empty the stomach by lavage with water, milk, sodium bicarbonate solution or a 0.1% solution of potassium ferrocyanide (the resulting copper ferrocyanide is insoluble).
- Administer egg white and other demulcents.
- Maintain electrolyte and fluid balances.
- Morphine or meperidine (Demerol) may be necessary for control of pain.
- If symptoms persist or intensify (especially circulatory collapse or cerebral disturbances, try BAL intramuscularly or penicillamine in accordance with the supplier's recommendations.
- Treat shock vigorously with blood transfusions and perhaps vasopressor amines.
- If intravascular haemolysis becomes evident protect the kidneys by maintaining a diuresis with mannitol and perhaps by alkalinising the urine with sodium bicarbonate.
- It is unlikely that methylene blue would be effective against the occassional methaemoglobinemia and it might exacerbate the subsequent haemolytic episode.
- Institute measures for impending renal and hepatic failure.

[GOSSELIN, SMITH & HODGE: Commercial Toxicology of Commercial Products]

- A role for activated for charcoals or emesis is, as yet, unproven.
- In severe poisoning CaNa2EDTA has been proposed.

[ELLENHORN & BARCELOUX: Medical Toxicology]

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

Special hazards arising from the substrate or mixture

Fire Incompatibility	‣ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

Advice for firefighters

Fire Fighting	‣ Use water to wet down wood dusts to reduce the dispersion of dust into the air. ‣ Remove burned or wet dust to open area, after fire is extinguished, as partially burnt or wet dust may spontaneously ignite. ‣ Rake out ashes. ‣ Self-contained breathing apparatus (SCBA) is recommended when fighting fire. Slight hazard when exposed to heat, flame and oxidisers.
Fire/Explosion Hazard	· Wood articles do not normally constitute an explosion hazard. · Wood dusts, however, may constitute an explosion risk where the mean particle size is less than 200 microns, and where as little as 10% of the mixture contains dust less than 80 microns in size. Only weak explosions are likely where the mean particle size exceeds 200 microns. Wood dust is considered to be explosive if ignition of part of a cloud of wood dust results in the propagation of flame through the rest of the cloud. The vigour of flame propagation will vary from dust cloud to dust cloud and not all flammable dusts are equally explosive. · The burning of an unconfined wood dust cloud produces a flash fire. For dry wood dusts: · Moisture Content : less than 5% · Particle size: less than 100 micron · Dust Explosion Class: Kst1 (some wood dust is KSt2) · Minimum Ignition Energy MIE 7-250 mJ · Minimum Cloud Ignition Temperature: 490 deg C. · Minimum Layer Ignition Temperature 310-320 deg C · Minimum Explosible Concentration MEC 40-60 g/m3 · Maximum Pressure Pmax: 9.2 barg (133 psig) · Deflagration Index Kst: 100-150 bar.m-sec Combustion products include: , carbon dioxide (CO_2) , other pyrolysis products typical of burning organic material. May emit poisonous fumes. May emit corrosive fumes.

Continued...

	Articles and manufactured articles may constitute a fire hazard where polymers form their outer layers or where combustible packaging remains in place. Certain substances, found throughout their construction, may degrade or become volatile when heated to high temperatures. This may create a secondary hazard.
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	▸ Clean up all spills immediately. ▸ Secure load if safe to do so. ▸ Bundle/collect recoverable product. ▸ Collect remaining material in containers with covers for disposal.
Major Spills	▸ Clean up all spills immediately. ▸ Secure load if safe to do so. ▸ Bundle/collect recoverable product. ▸ Collect remaining material in containers with covers for disposal.

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

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	Controls to reduce exposure to dusts include: · Many hazards are associated with wood dust production. Dusts can cause a range of skin, eye, lung and other aliments and complaints. · All work should be carried out in such a way as to minimise the generation of dust. Generally, all dust needs to collected at the point of generation. · Machining should be done with equipment fitted with exhaust extraction. · Hand power tools should be fitted with dust bags and used in well-ventilated areas. · Exposure to wood dust has long been associated with a variety of adverse health effects, including dermatitis, allergic respiratory effects, mucosal and non-allergic respiratory effects, and cancer. · In general, exposure to excessive amounts is considered to have an irritant effect on eyes, nose and throat in addition to pulmonary function. Western red cedar dust has also been shown to cause asthma. · Many tropical timbers are spalted (i.e. black lines are present within the timber). These black lines are caused by fungus. Any timber with fungal spores will grow fungus in a bag.
Other information	▸ Store away from incompatible materials.

Conditions for safe storage, including any incompatibilities

Suitable container	Generally packaging as originally supplied with the article or manufactured item is sufficient to protect against physical hazards. If repackaging is required ensure the article is intact and does not show signs of wear. As far as is practicably possible, reuse the original packaging or something providing a similar level of protection to both the article and the handler. |Usually stored in bulk.
Storage incompatibility	▸ Avoid reaction with oxidising agents

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Continued...

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	wood dust softwood	Wood dust (soft wood)	5 mg/m3	10 mg/m3	Not Available	Not Available
Australia Exposure Standards	wood dust hardwood	Wood dust (certain hardwoods such as beech & oak)	1 mg/m3	Not Available	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
sodium nitrite	Sodium nitrite	6.4 mg/m3	71 mg/m3	240 mg/m3
copper carbonate basic	Copper(II) carbonate hydroxide (2:1:2)	5.2 mg/m3	45 mg/m3	270 mg/m3

Ingredient	Original IDLH	Revised IDLH
Timber, as	Not Available	Not Available
wood dust softwood	Not Available	Not Available
wood dust hardwood	Not Available	Not Available
sodium nitrite	Not Available	Not Available
tebuconazole	Not Available	Not Available
copper carbonate basic	Not Available	Not Available
additives	Not Available	Not Available
dispersants	Not Available	Not Available

MATERIAL DATA

WARNING: Wood dusts have been classified by the IARC as Group 1: CARCINOGENIC TO HUMANS.
Wood dusts produce dermatitis and an increased risk of upper respiratory disease. Epidemiological studies in furniture workers show an increased risk of lung, tongue, pharynx and nasal cancer. An excess risk of leukaemia amongst millwrights probably is associated with exposure to various components used in wood preservation.
IARC has not limited this finding to any specific type of industry (e.g. furniture manufacturing) or wood dust source (hardwood vs. softwood). IARC's conclusions are based primarily on human carcinogenicity data from studies of various exposed worker populations.

Exposure controls

Appropriate engineering controls	Articles or manufactured items, in their original condition, generally don't require engineering controls during handling or in normal use. Exceptions may arise following extensive use and subsequent wear, during recycling or disposal operations where substances, found in the article, may be released to the environment. For wood dusts: · Significant accumulations of fine particles of wood dust can also be a fire and explosion hazard in the workplace.Check that the design and installation of dust control equipment incorporates explosion precautions.In particular look at the location of collection equipment and the need for enclosure and/or explosion relief. · Keep floors free and clear from wood chips and dust.Pay particular attention to areas around machines and on or near heating units. · The sanding or hogging of off-cuts containing metal may produce friction sparks, which can cause sawdust to smoulder and subsequently be fanned into fires or explosions. Use dedicated collection systems for these operations. Consider spark detection and extinguishing devices where there are significant risks. · Hot work involving the careless use of welding or flame-cutting equipment has resulted in many incidents.
Personal protection	
Eye and face protection	When sawing, machining or sanding use: ‣ Safety glasses with side shields. ‣ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A

Continued...

	▸ 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. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable.
Skin protection	See Hand protection below
Hands/feet protection	**NOTE:** ▸ 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. Wear general protective gloves, eg. light weight rubber gloves.
Body protection	See Other protection below
Other protection	· Always wear protective clothing, including shirts with long sleeves and high collars, long trousers, shoes or boots. · Provide vacuum cleaning equipment to remove dust from clothing, where this is a problem. Prevent the use of compressed airlines for this purpose. · Use barrier creams (silicone-free and fatty) before, during and after work. · Always wash hands prior to going to the toilet since some wood dust may irritate the genitals and anus. · Always wash hands prior to eating.
Thermal hazards	Not Available

Respiratory protection

Respiratory protection not normally required due to the physical form of the product.
Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

	Disposable respirator	Re-usable respirator	Powered respirator
All woodworking operations eg use of routers, lathes, planers, saws and vertical spindle moulders (VSMs)	Type P2 filter for low residual dust levels for lower risk woods such as pine Type P3 filter for higher residual dust levels such as when sanding (hand , disc, bobbin, pad etc.). Also for all work involving more toxic woods such as hard woods, Western red cedar and MDF	Type P2 filter fitted to either a half mask or full face mask of Class 1 or 2 Type P3 filter fitted to either a half mask or full face mask of Class 2 Note: A combined organic vapour filter Type A (organic), either Class 1 or 2, will provide protection against any formadehyde vapours present from MDF	Lightweight powered hood visor or helmet of Type TH1 equivalent protection to Type P2 filter Lightweight powered visor or helmet with Type TH2 equivalent to Type P3 filter
Changing dust collection bags on simple recirculating dust collectors in the workroom	Type P3 Filter	Type P3 filter fitted to either a half mask or full face mask of Class 2	Lightweight powered visor or helmet of Type TH2 equivalent to Type P3 filter
Entry into dust collection rooms/ vaults Entry into very dusty filter galleries for bag changing Work inside heavily contaminated ducts Ensure none of these are confined spaces (oxygen deficient atmosphere)	Disposable respirators not suitable	Type P3 filter fitted to full face mask of Class 2	Lightweight powered hood, visor or helmet of Type TH2 equivalent to Type P3 filter

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Solid wood with no odour; insoluble in water.

Physical state	Manufactured	**Relative density**	Not Applicable

Continued...

		(Water = 1)	
Odour	Not Available	**Partition coefficient n-octanol / water**	Not Available
Odour threshold	Not Available	**Auto-ignition temperature (°C)**	Not Available
pH (as supplied)	Not Applicable	**Decomposition temperature**	Not Available
Melting point / freezing point (°C)	Not Applicable	**Viscosity (cSt)**	Not Applicable
Initial boiling point and boiling range (°C)	Not Applicable	**Molecular weight (g/mol)**	Not Applicable
Flash point (°C)	Not Applicable	**Taste**	Not Available
Evaporation rate	Not Applicable	**Explosive properties**	Not Available
Flammability	Not Applicable	**Oxidising properties**	Not Available
Upper Explosive Limit (%)	Not Available	**Surface Tension (dyn/cm or mN/m)**	Not Applicable
Lower Explosive Limit (%)	Not Available	**Volatile Component (%vol)**	Not Available
Vapour pressure (kPa)	Not Available	**Gas group**	Not Available
Solubility in water (g/L)	Immiscible	**pH as a solution (1%)**	Not Applicable
Vapour density (Air = 1)	Not Applicable	**VOC g/L**	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	Product is considered stable and 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	Not normally a hazard due to physical form of product. The dust may be discomforting Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual. Wood dust may cause nasal dryness, irritation and obstruction of the respiratory system, coughing, wheezing, and sneezing. Inhalation of hardwood dusts may decrease the ability of the nose to clear particles, causing any wood dust in the nose to remain longer in the nasal cavity. Both the type of wood what is being done to the wood to generate the wood dust have a big impact on the dust's hazards. For instance, asthma cases have been reported for workers using western red cedar, and pneumonitis has been associated with redwood dust. Some effects associated with wood dust are thought to be due to molds, bacteria, or pesticides present on the wood or to other materials used during certain woodworking activities (e.g. formaldehyde).
Ingestion	Not normally a hazard due to physical form of product. The dust may be discomforting Accidental ingestion of the material may be damaging to the health of the individual.

Continued...

Skin Contact	Not normally a hazard due to physical form of product. The dust may be discomforting Limited evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis.
Eye	Not normally a hazard due to physical form of product. The dust may be discomforting Limited evidence exists, or practical experience suggests, that the material may cause eye irritation in a substantial number of individuals and/or is expected to produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.
Chronic	Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. Limited evidence shows that inhalation of the material is capable of inducing a sensitisation reaction in a significant number of individuals at a greater frequency than would be expected from the response of a normal population. Pulmonary sensitisation, resulting in hyperactive airway dysfunction and pulmonary allergy may be accompanied by fatigue, malaise and aching. Significant symptoms of exposure may persist for extended periods, even after exposure ceases. Symptoms can be activated by a variety of nonspecific environmental stimuli such as automobile exhaust, perfumes and passive smoking. There exists limited evidence that shows that skin contact with the material is capable either of inducing a sensitisation reaction in a significant number of individuals, and/or of producing positive response in experimental animals. On the basis, primarily, of animal experiments, the material may be regarded as carcinogenic to humans. At least one classification body considers that there is sufficient evidence to provide a strong presumption that human exposure to the material may result in cancer on the basis of: - appropriate long-term animal studies - other relevant information Chronic copper poisoning is rarely recognised in man although in one instance, at least, symptoms more commonly associated with exposures to mercury, namely infantile acrodynia (pink disease), have been described. Tissue damage of mucous membranes may follow chronic dust exposure. A hazardous situation is exposure of a worker with the rare hereditary condition (Wilson's disease or hereditary hepatolenticular degeneration) to copper exposure which may cause liver, kidney, CNS, bone and sight damage and is potentially lethal. Haemolytic anaemia (a result of red-blood cell damage) is common in cows and sheep poisoned by copper derivatives. Overdosing of copper feed supplements has resulted in pigmentary cirrhosis of the liver. [GOSSELIN, SMITH HODGE: Clinical Toxicology of Commercial Products] Common chronic responses to wood dust exposures are dermatitis, simple bronchitis and non asthmatic chronic airflow obstruction. Wood is an organic substrate for growth of micro-organisms and fungal spores, these readily become airborne with wood dust and have caused a variety of respiratory infections Various woods, mainly tropical varieties, are able to induce allergies in joiners, carpenters, cabinet makers and model-makers. Allergies of the immediate type (rhino conjunctivitis, bronchial asthma, urticaria), caused by contact with dusts produced during wood-working and those of a delayed type (contact eczema) caused by both the dust and by direct contact with the solid wood, are seen in an occupational setting. Because of the large number of substances found in wood, only a few low molecular weight allergens have been isolated and identified; these are mostly quinone or flavone derivatives. Many of the constituents of wood may also cause primary irritation. Irritation of the skin, eyes and respiratory passages are often distinguished from allergic responses with difficulty. |It should be noted that the effects from exposure to this product will depend on several factors|including: frequency and duration of use; quantity used; effectiveness of control measures; protective|equipment used and method of application. Given that it is impractical to prepare a report which|would encompass all possible scenarios, it is anticipated that users will assess the risks and apply|control methods where appropriate. [Manufacturer]

OneFortyOne MICROPRO (MCA) Treated Timber	TOXICITY	IRRITATION
	Not Available	Not Available

Continued...

wood dust softwood	TOXICITY	IRRITATION
	Not Available	Not Available
wood dust hardwood	TOXICITY	IRRITATION
	Not Available	Not Available
sodium nitrite	TOXICITY	IRRITATION
	Inhalation (rat) LC50: 0.0055 mg/l/4H[2]	Eye (rabbit): 500 mg/24hr - mild
	Oral (rat) LD50: 157.9 mg/kg[2]	
tebuconazole	TOXICITY	IRRITATION
	dermal (rat) LD50: >5000 mg/kg[2]	Non-irritating to eyes, skin. *
	Inhalation (rat) LC50: 0.371 mg/l/4H[2]	
	Oral (rat) LD50: 3352 mg/kg[2]	
copper carbonate basic	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg[1]	Not Available
	Oral (rat) LD50: 159 mg/kg[2]	
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*	

WOOD DUST SOFTWOOD	Allergic reactions which develop in the respiratory passages as bronchial asthma or rhinoconjunctivitis, are mostly the result of reactions of the allergen with specific antibodies of the IgE class and belong in their reaction rates to the manifestation of the immediate type. In addition to the allergen-specific potential for causing respiratory sensitisation, the amount of the allergen, the exposure period and the genetically determined disposition of the exposed person are likely to be decisive. Factors which increase the sensitivity of the mucosa may play a role in predisposing a person to allergy. They may be genetically determined or acquired, for example, during infections or exposure to irritant substances. Immunologically the low molecular weight substances become complete allergens in the organism either by binding to peptides or proteins (haptens) or after metabolism (prohaptens). Particular attention is drawn to so-called atopic diathesis which is characterised by an increased susceptibility to allergic rhinitis, allergic bronchial asthma and atopic eczema (neurodermatitis) which is associated with increased IgE synthesis. Exogenous allergic alveolitis is induced essentially by allergen specific immune-complexes of the IgG type; cell-mediated reactions (T lymphocytes) may be involved. Such allergy is of the delayed type with onset up to four hours following exposure. WARNING: Inhalation of wood dust by workers in the furniture and cabinet making industry has been related to nasal cancer [I.L.O. Encyclopedia] Use control measures to limit all exposures.
WOOD DUST HARDWOOD	WARNING: Inhalation of wood dust by workers in the furniture and cabinet making industry has been related to nasal cancer [I.L.O. Encyclopedia] Use good occupational work practices to limit all exposures.
SODIUM NITRITE	The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. Tumorigenic - Carcinogenic by RTECS criteria.
COPPER CARBONATE BASIC	for copper and its compounds (typically copper chloride): **Acute toxicity:** There are no reliable acute oral toxicity results available. In an acute dermal toxicity study (OECD TG 402), one group of 5 male rats and 5 groups of 5 female rats received doses of 1000, 1500 and 2000 mg/kg bw via dermal application for 24 hours. The LD50 values of copper monochloride were 2,000 mg/kg bw or greater for male (no deaths observed) and 1,224 mg/kg bw for female. Four females died at both 1500 and 2000 mg/kg bw, and one at 1,000 mg/kg bw. Symptom of the hardness of skin, an exudation of hardness site, the formation of scar and reddish changes were observed on application sites in all treated animals. Skin inflammation and injury were also noted.
WOOD DUST SOFTWOOD & WOOD DUST HARDWOOD	No significant acute toxicological data identified in literature search.
WOOD DUST SOFTWOOD & WOOD DUST HARDWOOD	For wood dusts: Wood dusts may cause respiratory symptoms including sensitisation and diminished respiratory function and may also be carcinogenic.

Continued...

	OSHA has determined that the health evidence for the toxicity of wood dust cannot be separately distinguished for soft wood and hard wood. A final OSHA ruling however establishes an 8-hour TWA PEL of 2.5 mg/m3 for Western red cedar wood dust, based on its widely recognized ability to cause immune-system-mediated allergic sensitization. Evidence in the record demonstrates the seriousness of this effect. Wood dust is defined as any wood particles arising from the processing or handling of woods. Hard woods derive from the deciduous broad-leaved flowering species of trees, and soft woods include the coniferous species that do not shed their leaves in the winter.
WOOD DUST HARDWOOD & COPPER CARBONATE BASIC	Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. 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. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases.

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 available but does not fill the criteria for classification*
✔ *– Data available to make classification*
⊘ *– Data Not Available to make classification*

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

OneFortyOne MICROPRO (MCA) Treated Timber

ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
Not Available	Not Available	Not Available	Not Available	Not Available

wood dust softwood

ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
Not Available	Not Available	Not Available	Not Available	Not Available

wood dust hardwood

ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
Not Available	Not Available	Not Available	Not Available	Not Available

sodium nitrite

ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
LC50	96	Fish	0.048mg/L	4
EC50	48	Crustacea	ca.12.5100mg/L	1
EC50	72	Algae or other aquatic plants	>100mg/L	2
NOEC	2	Fish	0.02mg/L	4

tebuconazole

ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
LC50	96	Fish	4.4mg/L	4
EC50	48	Crustacea	4.0mg/L	4
EC50	96	Algae or other aquatic plants	1.45mg/L	4

Continued...

	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
copper carbonate basic	LC50	96	Fish	0.0028mg/L	2
	EC50	48	Crustacea	0.00352-0.00466mg/L	2
	EC50	72	Algae or other aquatic plants	0.0165mg/L	2
	NOEC	1440	Fish	0.0022mg/L	2
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*				

Copper is unlikely to accumulate in the atmosphere due to a short residence time for airborne copper aerosols. Airborne coppers, however, may be transported over large distances. Copper accumulates significantly in the food chain.
Drinking Water Standards:
3000 ug/l (UK max)
2000 ug/l (WHO provisional Guideline)
1000 ug/l (WHO level where individuals complain)
Soil Guidelines: Dutch Criteria
36 mg/kg (target)
190 mg/kg (intervention)
Air Quality Standards: no data available.
The toxic effect of copper in the aquatic biota depends on the bio-availability of copper in water which, in turn, depends on its physico-chemical form (ie.speciation). Bioavailability is decreased by complexation and adsorption of copper by natural organic matter, iron and manganese hydrated oxides, and chelating agents excreted by algae and other aquatic organisms.

Toxic effects arising following exposure by aquatic species to copper are typically:

Algae EC50 (96 h)	Daphnia magna LC50 (48-96 h)	Amphipods LC50 (48-96 h)	Gastropods LC50 (48-96 h)	Crab larvae LC50 (48-96 h)
47-481 *	7-54 *	37-183 *	58-112 *	50-100 *

* ug/litre

Exposure to concentrations ranging from one to a few hundred micrograms per litre has led to sublethal effects and effects on long-term survival. For high bioavailability waters, effect concentrations for several sensitive species may be below 10 ug Cu/litre.

In fish, the acute lethal concentration of copper ranges from a few ug/litre to several mg/litre, depending both on test species and exposure conditions. Where the value is less than 50 ug Cu/litre, test waters generally have a low dissolved organic carbon (DOC) level, low hardness and neutral to slightly acidic pH. Exposure to concentrations ranging from one to a few hundred micrograms per litre has led to sublethal effects and effects on long-term survival. Lower effect concentrations are generally associated with test waters of high bioavailability.

In soil, copper levels are raised by application of fertiliser, fungicides, from deposition of highway dusts and from urban, mining and industrial sources. Generally, vegetation rooted in soils reflects the soil copper levels in its foliage. This is dependent upon the bioavailability of copper and the physiological requirements of species concerned.

Typical foliar levels of copper are:

Uncontaminated soils (0.3-250 mg/kg)	Contaminated soils (150-450 mg/kg)	Mining/smelting soils
6.1-25 mg/kg	80 mg/kg	300 mg/kg

Plants rarely show symptoms of toxicity or of adverse growth effects at normal soil concentrations of copper. Crops are often more sensitive to copper than the native flora, so protection levels for agricultural crops range from 25 mg Cu/kg to several hundred mg/kg, depending on country. Chronic and or acute effects on sensitive species occur at copper levels occurring in some soils as a result of human activities such as copper fertiliser addition, and addition of sludge.
DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
sodium nitrite	LOW	LOW
tebuconazole	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
sodium nitrite	LOW (LogKOW = 0.0564)

Continued...

tebuconazole	HIGH (LogKOW = 5.4673)

Mobility in soil

Ingredient	Mobility
sodium nitrite	LOW (KOC = 23.74)
tebuconazole	LOW (KOC = 20660)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal	· Recycle wherever possible or consult manufacturer for recycling options. · Consult State Land Waste Management Authority for disposal. For wood wastes including wood dusts: Various public policies encourage the utilisation of waste wood for heat and energy production. Generation of heat using combustion technologies such as grate-fired boilers, fluidised bed combustion and cement kilns. Energy production technologies have been developed which are able to utilise mixed biomass to create energy. Common technologies include steam turbines, gasification and pyrolysis. The main issue preventing the utilisation of wood wastes is overcoming contamination, especially contamination by chemicals such as wood preservatives. However, technologies are being developed to overcome such issues, which may be viable for some of the larger industries wishing to use waste wood for manufacturing or energy production. ▸ Recycle wherever possible or consult manufacturer for recycling options. ▸ Consult State Land Waste Authority for disposal. ▸ Bury or incinerate residue at an approved site. ▸ Recycle containers if possible, or dispose of in an authorised landfill.

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

WOOD DUST SOFTWOOD(NOT AVAIL.) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards

WOOD DUST HARDWOOD(NOT AVAIL.) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards

SODIUM NITRITE(7632-00-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Continued...

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals
Australia Inventory of Chemical Substances (AICS)
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 2
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
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 7

TEBUCONAZOLE(107534-96-3) 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

COPPER CARBONATE BASIC(12069-69-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix A
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4
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

National Inventory	Status
Australia - AICS	N (wood dust hardwood; tebuconazole; wood dust softwood)
Canada - DSL	N (wood dust hardwood; tebuconazole; wood dust softwood)
Canada - NDSL	N (copper carbonate basic; wood dust hardwood; tebuconazole; sodium nitrite; wood dust softwood)
China - IECSC	N (wood dust hardwood; wood dust softwood)
Europe - EINEC / ELINCS / NLP	N (wood dust softwood)
Japan - ENCS	N (wood dust hardwood; tebuconazole; wood dust softwood)
Korea - KECI	N (wood dust hardwood; wood dust softwood)
New Zealand - NZIoC	N (wood dust hardwood; wood dust softwood)
Philippines - PICCS	N (wood dust hardwood; wood dust softwood)
USA - TSCA	N (wood dust hardwood; tebuconazole; wood dust softwood)
Legend:	*Y = All ingredients are on the inventory* *N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)*

SECTION 16 OTHER INFORMATION

Other information

Ingredients with multiple cas numbers

Name	CAS No
copper carbonate basic	12069-69-1, 1319-53-5

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 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.

Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average
PC—STEL: Permissible Concentration-Short Term Exposure Limit
IARC: International Agency for Research on Cancer
ACGIH: American Conference of Governmental Industrial Hygienists
STEL: Short Term Exposure Limit
TEEL: Temporary Emergency Exposure Limit。
IDLH: Immediately Dangerous to Life or Health Concentrations
OSF: Odour Safety Factor
NOAEL :No Observed Adverse Effect Level

Continued...

LOAEL: Lowest Observed Adverse Effect Level
TLV: Threshold Limit Value
LOD: Limit Of Detection
OTV: Odour Threshold Value
BCF: BioConcentration Factors
BEI: Biological Exposure Index