

1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name:	TIMBERCLEAR TOPCOAT
Other names:	Not Assigned
Recommended use:	Clear solvent based top coat for use with Fireshield TimberClear intumescent basecoat intumescent for timber
Product codes:	Not Assigned
HSNO approval:	HSR002669
Supplier:	Fireshield, a division of Fire Protection Coatings Limited
NZBN:	9429041746059
Address:	Level 1, 60 Cashel Street, Christchurch 8013, New Zealand
Contact Number:	Ph: 0800 FIRESHIELD (0800 347374)
Email:	info@fireshieldcoatings.com
Website:	www.fireshieldcoatings.com
Emergency Number:	Ph: 111- Police, Ambulance and Fire Brigade
Poison Information Centre:	Ph: 0800764766

2. HAZARDS IDENTIFICATION

Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.
Classified as a Dangerous Good according to the NZS 5433 – Transport of Dangerous Goods on Land”

HSNO Classification and Hazard Statements:

3.1C	H226 - Flammable liquid and vapour.
6.1D (oral)	H302 - Harmful if swallowed.
6.3A	H315 - Causes skin irritation
6.4A	H320 - Causes eye irritation
6.5B	H317 - May cause allergic reaction
6.6B	H341 - Suspected of causing genetic defects
6.7B	H341 - Suspected of causing cancer
6.8B	H361 - Suspected of damaging fertility or the unborn child
6.9B	H371 - May cause damage to organs through prolonged or repeated exposure.
6.9B (narcotic)	H336 - May cause drowsiness or dizziness.
9.1D	H402 - Harmful to aquatic life.
9.3C	H433 - Harmful to terrestrial vertebrates.

WARNING:**Precautionary Statements:**

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.
P104 - Read Safety Data Sheet before use.
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/eye/face protection.
P281 - Use personal protective equipment as required.
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 – Refer Section 4 – First aid measures of this Safety data sheet
P331 - Do NOT induce vomiting.
P337+P313 - If eye irritation persists: Get medical advice/attention. P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P332 + P313 – If skin irritation occurs: Get medical advice/attention. P362 – Take off contaminated clothing and wash before re-use.
P308+P313 - IF exposed or concerned: Get medical advice/ attention.
P304+P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P312 - Call a POISON CENTRE or doctor/physician if you feel unwell.
P370 + P378 - In case of fire: Use dry chemical, carbon dioxide, regular foam extinguishing agent for extinction
P403+P233+P235 - Store in a well-ventilated place. Keep container tightly closed. Keep cool.
P405 - Store locked up.

Other hazards**Health hazard:**

Long lasting and repeated exposure to solvent vapours above the occupational exposure limits may be seriously detrimental to health and result in adverse health effects such as mucous membrane and respiratory system irritation. It may cause permanent nerve damage. Repeated exposure may cause skin dryness or cracking.

Fire:

Prevent formation of flammable or explosive concentrations of vapour in air. Avoid vapour concentrations above the occupational exposure limits. Ventilate well. Keep away from open flame or other ignition sources. The product may build up electrostatic charges. Ground all equipment. Prevent sparks from static electricity. Operators should wear antistatic footwear and clothing

Physical / Chemical Hazards:

May cause damage to seals, certain painted surfaces, protective grease layers and materials of natural rubber.

3. COMPOSITION

Chemical	CAS Number	Proportion
Naphtha (petroleum), Hydrodesulphurised, heavy (14-17%),	64742-82-1	< 25%
Xylene	1330-20-7	10 – 20%
n-Butyl acetate	123-86-4	2.5 – 10%

4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (New Zealand 0800 764 766).

Inhalation: Remove to fresh air. Keep person warm and at rest. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration. Give nothing by mouth. If unconscious, place in recovery position and seek medical advice. If INHALED and symptoms develop, or you feel unwell: call NZ Poisons Information Centre (0800 764 766). Do NOT induce vomiting.

Skin contact: For gross contamination, immediately drench with water and remove clothing. Continue to flush skin and hair with plenty of water (and soap if material is insoluble). For skin burns, cover with a clean, dry dressing until medical help is available. If blistering occurs, do NOT break blisters. If swelling, redness, blistering, or irritation occurs seek medical assistance.

Eye contact: If in eyes wash out immediately with water. Seek medical attention.

Ingestion: Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.

Symptoms and effects – acute and delayed: Inhalation may cause headache, dizziness, fatigue and nausea. Long lasting and repeated exposure to solvent vapours above limits can be seriously detrimental to health and result in adverse health effects such as mucous membrane and respiratory system irritation and may cause permanent nerve damage. Repeated or prolonged contact may dry and irritate the skin and cause skin dryness or cracks. Eye contact causes irritation. May cause vomiting, stomach pains and same symptoms as by inhalation of vapours. Because of "naphtha" (see point 3) there is a risk for lung damage if swallowed

Notes to physician: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Specific hazards: Flammable liquid. May form flammable vapour mixtures with air. Flameproof equipment necessary in area where this chemical is being used. Nearby equipment must be earthed. Electrical requirements for work area should be assessed according to AS3000. Vapour may travel a considerable distance to source of ignition and flash back. Avoid all ignition sources. All potential sources of ignition (open flames, pilot lights, furnaces, spark producing switches and electrical equipment etc) must be eliminated both in and near the work area. Do NOT smoke.

Firefighting further advice: Heating can cause expansion or decomposition leading to violent rupture of containers. If safe to do so, remove containers from path of fire. Keep containers cool with water spray. On burning may emit toxic fumes, including oxides of carbon and nitrogen. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

Hazardous combustion products: . On burning may emit toxic fumes, including oxides of carbon and nitrogen.

Hazchem Code: •3Y

Suitable extinguishing media: Alcohol resistant foam is the preferred fire-fighting medium. If material is involved in a fire use alcohol resistant foam, standard foam or dry agent (carbon dioxide, dry chemical powder).

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILLS

Wear protective equipment to prevent skin and eye contamination. Wipe up with absorbent (clean rag or paper towels). Allow absorbent to dry before disposing with normal household garbage.

LARGE SPILLS

Shut off all possible sources of ignition. Clear area of all unprotected personnel. Prevent further leakage or spillage if safe to do so. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. Use a spark-free shovel. If contamination of sewers or waterways has occurred advise local emergency services.

Dangerous Goods – Initial Emergency Response Guide No: 14

7. HANDLING AND STORAGE

Handling: Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

Storage: Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat or ignition. Keep containers closed when not in use - check regularly for leaks.

This material is classified as a Dangerous Good Class 3 Flammable Liquid and must be stored in accordance with the relevant regulations.

This material is a Scheduled Poison S5 and must be stored, maintained and used in accordance with the relevant regulations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

	TWA		STEL		CARCINOGEN CATEGORY	NOTICES
	ppm	mg/m3	ppm	mg/m3		
Xylene	50*	217*	150 [†]	655 [†]	-	-
Toluene	50*	188*	150 [†]	574 [†]	-	-
Naptha						
Ethyl Benzene	100*	434*	125*	543*	-	-

As published by the **Workplace Exposure Standards for Airborne Contaminants – 2018* (Safe Work Australia) and [†]*Workplace Exposure Standards and Biological Exposure Indices – 2018* (WorkSafe New Zealand and Department of Labour New Zealand).

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Biological Exposure Monitoring:

Component	CAS/ Identification	BEI
Xylene	1330-20-7	1.5 g/L
Toluene	108-88-3	0.03 mg/L 0.3 mg/g (creatinine)
Ethylbenzene	100-41-4	0.25 g/g (creatinine)

As published in the *Workplace Exposure Standards and Biological Exposure Indices – 2018* (WorkSafe New Zealand and Department of Labour New Zealand).

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

Engineering measures: Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use with local exhaust ventilation or while wearing appropriate respirator. Vapour heavier than air - prevent concentration in hollows or sumps. DO NOT enter confined spaces where vapour may have collected. Keep containers closed when not in use.

Personal protection equipment: G: OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES, RESPIRATOR.
Wear overalls, safety glasses and impervious gloves. Use with adequate ventilation. If inhalation risk exists wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.
Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment.

Hygiene measures: When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid skin and eye contact and inhalation of vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form / Colour / Odour	Clear viscous liquid with a solvent odour.
Solubility:	Insoluble in water. Soluble in organic solvents.
Specific Gravity (20 °C):	1.060 kg/m ³
Relative Vapour Density (air=1):	N Av
Vapour Pressure (20 °C):	N Av
Flash Point (°C):	27
Explosive Limits (%):	1 – 8 vol%
Autoignition Temperature (°C):	N Av
% Volatile by Weight:	50
Melting Point/Range (°C):	N Av
Boiling Point/Range (°C):	125°C
Decomposition Point (°C):	N Av
pH:	N Av
Viscosity:	High viscous
VOC	499 g/l

(Typical values only - consult specification sheet)

N Av = Not available

N App = Not applicable

10. STABILITY AND REACTIVITY

Reactivity: No reactivity hazards are known for the material.

Chemical stability: This material is thermally stable when stored and used as directed.

Hazardous reactions: No known hazardous reactions.

Conditions to avoid: Elevated temperatures and sources of ignition.

Incompatible materials: Keep away from oxidizing agent, strongly alkaline and strongly acidic material to avoid exothermic reactions.

Hazardous decomposition products: Oxides of carbon and nitrogen, smoke and other toxic fumes.

11. TOXICOLOGICAL INFORMATION

- Inhalation:** Exposure to component solvents vapors concentration in excess of the occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.
- Skin contact:** Some of the above effects may be caused by absorption through the skin. Prolonged or repeated direct contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.
- Eye contact:** Splashes in the eyes may cause irritation and reversible damage.
- Ingestion:** May cause vomiting, stomach ache in addition to the symptoms that may arise when the product is inhaled.

Acute toxicity / Chronic toxicity*:

No LD50 data available for the product. Toxicological data of hazardous components are mentioned below –

	Xylene (10-20%)	n-Butyl acetate (2.5-10%)
Acute Dermal Toxicity	Class 6.1D Harmful if in contact with skin LD50 range for 6.1D is 1000-2000 mg/kg ,	
Acute Oral Toxicity	Mouse: 1590mg/kg LD50	Rabbit: 3200mg/kg LD50
Acute Inhalation Toxicity	Inhalation from vapour, Rat: 6350ppm LC50	Inhalation from dust/mist, Rat: approximately 2mg/L LC50
Skin Irritation	R-phase R 38: Irritating to skin	Rabbit: Moderate Irritation to skin
Eye Irritation	Rabbit: Reversible damage to eye by exposure to 0.1ml	Rabbit: Irritation to eye
Reproductive Toxicity	Placental transfer has been shown in humans and experimental animals. LOAEL values of 115-500 ppm have been reported depending on length of exposure. Rat: Postnatal development long lasting with 500 ppm exposure.	
Specific Target Organ Toxicity (STOT)	Inhalation: 435-1300 mg/cu m for 15 min to 6 hr/day for 4 days results in central nervous system (CNS) disturbances.	

*The above data is reproduced directly from the Manufacturer's MSDS published figures.

12. ECOLOGICAL INFORMATION

	Naphtha (petroleum), Hydrodesulphurised, heavy	Xylene	n-Butyl acetate
Mobility	The product evaporates relatively fast from the water and ground surface. If large amounts are released to the ground, there is a risk that the product moves down through the ground and harms the ground water.		
Bioaccumulability	Bioaccumulability may be possible (Estimated log Pow: 2-7)	Not bioaccumulative	Not bioaccumulative
Persistence/ biodegradability	Easily biodegraded. Is biodegraded relatively fast by naturally existing microorganisms [≠] .	Readily biodegradable*	Readily degradable, domestic sewage: 98% degradation after 28 days*.
Aquatic Toxicity	LC50 for water organisms is assumed to be in the area of 1-100 mg/l [≠] .	Fish: Static exposure for 96hr 3.3 mg/l LC50* Algae: 72hr exposure 10mg/l LC50*	Fish: Flow through exposure for 96hr 18mg/l LC50* Crustacean: Static exposure for 48hr 32mg/l LC50*
Terrestrial Toxicity		Mouse: 1590 mg/kg LD50	

*The above data is reproduced directly from the Manufacturer's MSDS published figures.

13. DISPOSAL CONSIDERATIONS

There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.

Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.

Contaminated packaging

Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible, reuse or recycle packaging

14. TRANSPORT INFORMATION

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous

good for transport.

UN number:	1263	Proper shipping name:	PAINT
Class(es)	3	Packing group:	III
Precautions:	Flammable liquid	Hazchem code:	3Y

15. REGULATORY INFORMATION

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). All ingredients appear on the NZIoC.

Key requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000L is stored.
Certified handler	Required if > not required is handled or stored.
Tracking	This substance is required to be tracked if > not required is present.
Bunding & secondary containment	Required if > 1000L is stored.
Signage	Required if > 1000L is stored.
Location compliance certificate	Required if > 500L (containers >5L), 1500L (containers ≤5L), 250L (in use) is stored.
Flammable Zone	Must be established if > 100L (closed containers), 25L (decanting), 5L (open occasionally), 1L (in use), stored in any one location is stored.
Fire extinguisher	If > 500L present.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans

16. OTHER INFORMATION

Abbreviations

CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL/UEL	Lower Explosive Limit/ Upper Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).

Material Safety Data Sheet

TimberClear Top Coat

LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
NZIoC	New Zealand Inventory of Chemicals
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15-minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, www.epa.govt.nz , Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .
Other References:	Suppliers SDS, EU ECHA, ingredients SDS's, ChemIDplus

Prepared with reference to: EPA - *Hazardous Substances (Safety Data Sheets) Notice 2017*.

Current Version:	01 May 2019
Revision Information:	SDS will be revised every 5 years.
This revision:	Updated to meet NZ standards
Previous version dated:	30.07.2015

Disclaimer:

This safety data sheet attempts to describe as accurately as possible the potential exposures associated with normal use of the product described herein. Health and safety precautions in the data sheet may not be adequate for all individuals and/or situations. Users have the responsibility to evaluate and use this product safely and to comply with all applicable laws and regulations. Whilst the information contained in this document is based on data, which, to the best of our knowledge, was accurate and reliable at the time of preparation, no warranty or responsibility can be accepted by Chemsafety Ltd for errors and omissions. The provision of this information should not be construed as a recommendation to use any of our products in violation of any patent rights or in breach of any statute or regulation. Users are advised to make their own determination as to the suitability of this information in relation to their purposes and specific circumstances. Since the information contained in this document may be applied under conditions beyond our control, no responsibility can be accepted by us for any loss or damage caused by any person acting or refraining from action as a result of this information. The user is responsible for that last revision of this document is used. Please check on www.fireshieldcoatings.com

End of SDS