

Material Safety Data Sheet

1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name:	Thinner 002
Other names:	Not Assigned
Recommended use:	Solvent used for thinning Fireshield SQ476
Product codes:	Not Assigned
Group approval code:	HSR002662
Supplier:	Fireshield, a division of Fire Protection Coatings Ltd
NZBN:	9429041746059
Address:	Level 1, 60 Cashel Street, Christchurch 8013, New Zealand
Contact Number:	Ph: 0800 FIRESHIELD (0800 347 374)
Email:	info@fireshieldcoatings.com
Website:	www.fireshieldcoatings.com
Emergency Number:	Ph: 111- Police, Ambulance and Fire Brigade
Poison Information Centre:	Ph: 0800 764 766

2. HAZARDS IDENTIFICATION

Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017. Classified as a Dangerous Good according to the NZS 5433 – Transport of Dangerous Goods on Land.

GHS Classification:

- Acute toxicity (inhalation: vapor): Category4
- Chronic aquatic toxicity: Category2
- Carcinogenicity: Category2
- Reproductive toxicity: Category1B
- Serious eye damage/irritation: Category2
- Flammable liquids: Category3
- Skin corrosion/irritation: Category2
- Aspiration hazard: Category1

HSNO Classification and Hazard Statements:

DANGER



Flammable

Harmful

Health Hazard

Harmful to aquatic Life

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Hazard Statements:

- 3.1C H226 - Flammable liquid and vapour
6.1E H304 - May be fatal if swallowed and enters airways
6.3A H315 - Causes skin irritation
6.4A H319 - Causes serious eye irritation
6.1D H332 - Harmful if inhaled
6.7B H351 - Suspected of causing cancer
6.8A H360 - May damage fertility or the unborn child
9.1B H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements:

- P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
P242 - Use only non-sparking tools. Flammable liquids (chapter 2.6) 1, 2, 3
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P281 - Use personal protective equipment as required.

Response

- P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P321 - Specific treatment
P331 - Do NOT induce vomiting.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362 - Take off contaminated clothing and wash before reuse.
P370+P378 - In case of fire: Use Suitable extinguishing media for extinction (Refer Section MSDS 5).
P391 - Collect spillage.

Storage

- P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.

Disposal

- P501 - Dispose of contents/container in accordance with local/regional/national/international regulation

Other hazards

NFPA Grade – Health : 2, Flammability : 3, Reactivity : 0

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3. COMPOSITION INFORMATION

Component	CAS/ Identification	Conc (%)
Xylene	1330-20-7	70 – 80 %
Ethylbenzene	100-41-4	20 – 30 %

4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone: New Zealand 0800 764 766). If medical advice is needed, have product container or label at hand.

Inhalation: When exposed to large amounts of steam and mist, move to fresh air. Take specific treatment if needed. Get medical attention immediately. If breathing is stopped or irregular, give artificial respiration and supply oxygen.

Skin contact: - Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. 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.

Key symptoms caused by exposure: Not available

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: Cool containers with water until well after fire is out. Keep unauthorized personnel out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. Wear appropriate protective equipment. Keep containers cool with water spray. Vapor or gas is burned at distant ignition sources can be spread quickly. The extremely low flash point made by fire-fighters may be less effective at digesting weeks.

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

Suitable extinguishing media: Carbon dioxide, extinguishing powder, foam. Avoid use of water jet for extinguishing

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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.

ENVIRONMENTAL PRECAUTIONS

Prevent run off into drains, sewers and waterways. If large amount has been spilled, inform relevant authorities. Dispose waste in accordance with local laws.

Dangerous Goods – Initial Emergency Response Guide No: 14

7. HANDLING AND STORAGE

Handling: Keep out of reach of children. Read label and safety data sheet before use. Avoid skin and eye contact and inhalation of vapour, mist or aerosols. Keep away from sources of ignition. Ground / bond receiving equipment and use explosion-proof electrical equipment. Take precautionary measures against static discharge. Prohibit eating, drinking and smoking in work areas. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

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. Store locked up.

This material is classified as a Dangerous Good Class 3 Flammable Liquid and must be stored 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 [†]	-	-
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
Ethylbenzene	100-41-4	0.25 g/g (creatinine)

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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:	Liquid with a characteristic odour.
Solubility:	Insoluble in water
Specific Gravity:	0.835 - 0.895
Relative Vapour Density (air=1):	Heavier than air
Vapour Pressure (20 °C):	N Av
Flash Point (°C):	25°C
Flammability Limits (%):	1% / 7%
Autoignition Temperature (°C):	N Av
% Volatile by Weight:	N Av
Melting Point/Range (°C):	N Av
Decomposition Point (°C):	N Av
pH:	N Av
Autoignition Temperature (°C):	432°C
Viscosity:	N Av

(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.

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Incompatible materials: May emit flammable vapours in the event of a fire. May emit toxic fumes in a fire

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

11. TOXICOLOGICAL INFORMATION

IF SWALLOWED: may be fatal if swallowed and enters airways

IF IN EYES: Causes serious eye irritation

IF ON SKIN: Causes skin irritation. Sensitised individuals may experience an allergic skin reaction.

IF INHALED: may cause dizziness and drowsiness.

CHRONIC TOXICITY: may cause central nervous system effects, damage to kidney and liver, may cause ototoxicity. May cause cancer.

Acute toxicity

*** Oral**

- [Xylene]: LD50=3550 mg/kg rat

- [Ethylbenzene]: LD50 = 3500 mg/kg Rat

*** Dermal**

- [Xylene]: LD50 4350 mg/kg Rabbit

- [Ethylbenzene]: LD50 = 15400 mg/kg Rabbit

*** Inhalation**

- [Xylene]: Steam LC50 6700 ppm 4 hr Rat (Equivalentents : 29.09 mg/L)

- [Ethylbenzene]: Steam LC50 = 9.6 mg/L/4 hr Rat

o Skin corrosion/irritation

- Causes skin irritation

o Serious eye damage/irritation

- Causes serious eye irritation

o Respiratory sensitization

- Not available

o Skin sensitization

- Not available

o Carcinogenicity

*** IARC**

- [Ethylbenzene]: Group 2B

- [Xylene]: Group 3

*** OSHA**

- Not available

*** ACGIH**

- [Ethylbenzene]: A3

- [Xylene]: A4

*** NTP**

- Not available

*** EU CLP**

- Not available

o Germ cell mutagenicity

- Not available

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- **Reproductive toxicity**
 - May damage fertility or the unborn child
- **STOT-single exposure**
 - Not available
- **STOT-repeated exposure**
 - Not available
- **Aspiration hazard**
 - May be fatal if swallowed and enters airways

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

12. ECOLOGICAL INFORMATION

A. Ecotoxicity

○ Fish

- [Xylene]: LC50 3.3 mg/ℓ 96 hr
- [Ethylbenzene]: LC50 = 9.09 mg/ℓ 96 hr

○ Crustaceans

- [Xylene]: LC50 190 mg/ℓ 96 hr
- [Ethylbenzene]: LC50 = 0.4 mg/ℓ 96 hr

○ Algae

- Not available

B. Persistence and degradability

○ Persistence

- Not available

○ Degradability

- Not available

C. Bioaccumulative potential

○ Bioaccumulative potential

- Not available

○ Biodegradation

- [Xylene]: 39 (%)

D. Mobility in soil

- [Xylene]: log Kow = 3.12 (measured) (ortho), 3.2 (measured) (meta), 3.15 (measurements) (p) (5)
- [Ethylbenzene]: log Kow = 3.15 (11)

E. Other adverse effects

- Not available

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13. DISPOSAL CONSIDERATIONS

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

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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 the packing.

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 goods for transport

UN number:	1263	Proper shipping name:	Paint related material
Class(es)	3	Packing group:	III
Precautions:	Flammable liquid		

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.
Secondary containment	Required if > 10,000L is stored.
Signage	Required if > 1000L is stored.
Location compliance certificate	Required if > 500L (containers >5L), 1500L (containers ≤5L), 250L (in use) is stored.
Hazardous Area 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

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16. OTHER INFORMATION

Abbreviations

BEI	Biological Exposure Indices
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).
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), for a five-day working week over an entire working life.
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*.

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Current Version: 01 May 2019
Revision Information: SDS will be revised every 5 years.
This revision: New Product
Previous version dated: NA

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