

Thermaline 450 Part A

Altex Coatings Ltd

Chemwatch: 9-43312

Version No: 1.3

Safety Data Sheet according to HSNO Regulations

Chemwatch Hazard Alert Code: 4

Issue Date: 23/12/2013

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

Product Identifier

Product name	Thermaline 450 Part A
Chemical Name	Not Applicable
Synonyms	Not Available
Proper shipping name	PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound)
Chemical formula	Not Applicable
Other means of identification	Not Available
CAS number	Not Applicable

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

Relevant identified uses	Use according to manufacturer's directions. Part A of a two pack coating
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Details of the supplier of the safety data sheet

Registered company name	Altex Coatings Ltd
Address	New Zealand
Telephone	+64 7 5411221
Fax	+64 7 5411310
Website	www.altexcoatings.co.nz
Email	Not Available

Emergency telephone number

Association / Organisation	Not Available
Emergency telephone numbers	0800 764766
Other emergency telephone numbers	0800 764766

CHEMWATCH EMERGENCY RESPONSE

Primary Number	Alternative Number 1	Alternative Number 2
+800 2436 2255	+612 9186 1132	Not Available

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

Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation.

GHS Classification ^[1]	Flammable Liquid Category 2, Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 2, Skin Sensitizer Category 1, Germ Cell Mutagen Category 1, Carcinogen Category 2, Reproductive Toxicity Category 2, STOT - RE Category 2, Acute Aquatic Hazard Category 3
Legend:	1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI
Determined by Chemwatch using GHS/HSNO criteria	3.1B, 6.1D (oral), 6.3A, 6.5B (contact), 6.6A, 6.7B, 6.8B, 6.9B (inhalation), 9.1D

Label elements

GHS label elements	
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SIGNAL WORD	DANGER
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Hazard statement(s)

H225	Highly flammable liquid and vapour
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H340	May cause genetic defects
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H402	Harmful to aquatic life

Supplementary statement(s)

Not Applicable

Precautionary statement(s): Prevention

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
P233	Keep container tightly closed.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/intrinsically safe equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary statement(s): Response

P308+P313	IF exposed or concerned: Get medical advice/attention.
P321	Specific treatment (see advice on this label).
P370+P378	In case of fire: Use... to extinguish.
P302+P352	IF ON SKIN: Wash with plenty of water and soap
P314	Get medical advice/attention if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing.
P330	Rinse mouth.

Precautionary statement(s): Storage

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

Precautionary statement(s): Disposal

P501	Dispose of contents/container to authorised chemical landfill or if organic to high temperature incineration
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SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS**Substances**

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
28064-14-4	30-40	phenyl glycidyl ether/ formaldehyde copolymer
65997-17-3	NotSpec.	Microglassflake RCL160 (fibreglass reinforcements)
1330-20-7	10-20	xylene
78-93-3	10-20	methyl ethyl ketone
71011-24-0	1-10	tallowalkyldimethylammonium chloride/ bentonite quaternary

SECTION 4 FIRST AID MEASURES

NZ Poisons Centre 0800 POISON (0800 764 766) | NZ Emergency Services: 111

Description of first aid measures

Eye Contact	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> ▶ 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.
Skin Contact	<ul style="list-style-type: none"> ▶ Gently brush or vacuum off adherent fibres. ▶ Wash affected areas thoroughly with water (and soap if available). ▶ Seek medical attention if irritation exists and persists.
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"> ▶ IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY. ▶ For advice, contact a Poisons Information Centre or a doctor. ▶ Urgent hospital treatment is likely to be needed. ▶ In the mean time, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition. ▶ If the services of a medical officer or medical doctor are readily available, the patient should be placed in his/her care and a copy of the MSDS should be provided. Further action will be the responsibility of the medical specialist. ▶ If medical attention is not available on the worksite or surroundings send the patient to a hospital together with a copy of the MSDS. <p>Where medical attention is not immediately available or where the patient is more than 15 minutes from a hospital or unless instructed otherwise:</p> <ul style="list-style-type: none"> ▶ INDUCE vomiting with fingers down the back of the throat, ONLY IF CONSCIOUS. Lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. <p>NOTE: Wear a protective glove when inducing vomiting by mechanical means.</p>

Indication of any immediate medical attention and special treatment needed

	<p>for poisons (where specific treatment regime is absent):</p> <p>-----</p> <p>BASIC TREATMENT</p> <p>-----</p> <ul style="list-style-type: none"> • Establish a patent airway with suction where necessary. • Watch for signs of respiratory insufficiency and assist ventilation as necessary. • Administer oxygen by non-rebreather mask at 10 to 15 L/min. • Monitor and treat, where necessary, for pulmonary oedema. • Monitor and treat, where necessary, for shock. • Anticipate seizures . • DO NOT use emetics. Where ingestion is suspected rinse mouth and give up to 200 ml water (5 ml/kg recommended) for dilution where patient is able to swallow, has a strong gag reflex and does not drool. <p>-----</p> <p>ADVANCED TREATMENT</p> <p>-----</p> <ul style="list-style-type: none"> • Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory arrest has occurred. • Positive-pressure ventilation using a bag-valve mask might be of use. • Monitor and treat, where necessary, for arrhythmias. • Start an IV D5W TKO. If signs of hypovolaemia are present use lactated Ringers solution. Fluid overload might create complications. • Drug therapy should be considered for pulmonary oedema. • Hypotension with signs of hypovolaemia requires the cautious administration of fluids. Fluid overload might create complications. • Treat seizures with diazepam. • Proparacaine hydrochloride should be used to assist eye irrigation. <p><i>BRONSTEIN, A.C. and CURRANCE, P.L.</i> EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994 Treat symptomatically.</p> <p>Mineral fibres are a mechanical irritant, and are not expected to produce any chronic health effects from acute exposures. Treatment should be directed toward removing the source of irritation with symptomatic treatment as necessary. Lung function should be monitored, periodically, in individuals chronically exposed to fibres in an occupational setting</p> <p>For acute or short term repeated exposures to xylene:</p> <ul style="list-style-type: none"> ▶ Gastro-intestinal absorption is significant with ingestions. For ingestions exceeding 1-2 ml (xylene)/kg, intubation and lavage with cuffed endotracheal tube is recommended. The use of charcoal and cathartics is equivocal. ▶ Pulmonary absorption is rapid with about 60-65% retained at rest. ▶ Primary threat to life from ingestion and/or inhalation, is respiratory failure. ▶ Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO₂ < 50 mm Hg or pCO₂ > 50 mm Hg) should be intubated. ▶ Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance. ▶ A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax. ▶ Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice. <p style="text-align: center;">BIOLOGICAL EXPOSURE INDEX - BEI</p>
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These represent the determinants observed in specimens collected from a healthy worker exposed at the Exposure Standard (ES or TLV):

Determinant	Index	Sampling Time	Comments
Methylhippu-ric acids in urine	1.5 gm/gm creatinine	End of shift	
	2 mg/min	Last 4 hrs of shift	

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

▸ Foam.

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

▸ Alert Fire Brigade and tell them location and nature of hazard.

Fire/Explosion Hazard

▸ Liquid and vapour are highly flammable.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Minor Spills

▸ Clean up all spills immediately.

Major Spills

▸ Clear area of personnel and move upwind.

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

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling

▸ Containers, even those that have been emptied, may contain explosive vapours.

Other information

▸ Store in original containers in approved flame-proof area.

Conditions for safe storage, including any incompatibilities

Suitable container

▸ Packing as supplied by manufacturer.

Storage incompatibility

Xylenes:



X

X

X

X

X

+

X — Must not be stored together

0 — May be stored together with specific preventions

+ — May be stored together

PACKAGE MATERIAL INCOMPATIBILITIES

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
New Zealand Workplace Exposure Standards (WES)	xylene	Xylene (o-, m-, p-isomers)	217 (mg/m3) / 50 (ppm)	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	methyl ethyl ketone	Methyl ethyl ketone	445 (mg/m3) / 150 (ppm)	890 (mg/m3) / 300 (ppm)	Not Available	Exposure can also be estimated by biological monitoring.


EMERGENCY LIMITS

Ingredient	TEEL-0	TEEL-1	TEEL-2	TEEL-3
phenyl glycidyl ether/ formaldehyde copolymer	15(ppm)	50(ppm)	350(ppm)	500(ppm)
Microglassflake RCL160 (fibreglass reinforcements)	5(ppm)	15(ppm)	60(ppm)	500(ppm)

xylene	100(ppm)	130(ppm)	920(ppm)	2500(ppm)
methyl ethyl ketone	200(ppm)	200(ppm)	2700(ppm)	4000(ppm)

Ingredient	Original IDLH	Revised IDLH
xylene	1,000(ppm)	900(ppm)
methyl ethyl ketone	3,000(ppm)	3,000 [Unch](ppm)

Exposure controls

Appropriate engineering controls	▸ If measured respirable fibre is less than the recommended occupational exposure level, wear approved dust respirator Class P1 (half-face).
Personal protection	
Eye and face protection	▸ Safety glasses with side shields
Skin protection	See Hand protection below
Hand protection	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.
Body protection	See Other protection below
Other protection	▸ Disposable coveralls or long sleeve, loose fitting protective clothing, e.g. overalls (launder clothing separately from other clothing).
Thermal hazards	

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:
Thermaline 450 Part A Not Available

Material	CPI

* CPI - Chemwatch Performance Index

Respiratory protection

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 5 x ES	AX-AUS / Class 1 P2	-	AX-PAPR-AUS / Class 1 P2
up to 25 x ES	Air-line*	AX-2 P2	AX-PAPR-2 P2
up to 50 x ES	-	AX-3 P2	-
50+ x ES	-	Air-line**	-

* - Continuous-flow; ** - Continuous-flow or positive pressure demand

^ - 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)

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Coloured with Characteristic Odour		
Physical state	Liquid	Relative density (Water = 1)	1.35
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	485
pH (as supplied)	Not Available	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	109	Molecular weight (g/mol)	Not Available
Flash point (°C)	10	Taste	Not Available
Evaporation rate	3.1	Explosive properties	Not Available
Flammability	Not Available	Oxidising properties	Not Available

Upper Explosive Limit (%)	9.8	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	1.4	Volatile Component (%vol)	21
Vapour pressure (kPa)	4.9	Gas group	Not Available
Solubility in water (g/L)	Immiscible	pH as a solution(1%)	Not Available
Vapour density (Air = 1)	3.0	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	▸ Presence of incompatible materials.
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 either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models).
Ingestion	Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.
Skin Contact	The liquid may be miscible with fats or oils and may degrease the skin, producing a skin reaction described as non-allergic contact dermatitis.
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	There is sufficient evidence to provide a strong presumption that human exposure to the material may result in the development of heritable genetic damage, generally on the basis of

Thermaline 450 Part A	TOXICITY	IRRITATION
	Not Available	Not Available
phenyl glycidyl ether/ formaldehyde copolymer	TOXICITY	IRRITATION
	Dermal (Rat) LD50: 4000 mg/kg *	* [Ciba-Geigy]
	Oral (Rat) LD50: 4000 mg/kg *	Effects transient
		Eyes * (-) (-) Slight irritant
		May cause allergic response
		Skin * (-) (-) Slight irritant
Not Available	Not Available	
Microglassflake RCL160 (fibreglass reinforcements)	TOXICITY	IRRITATION
	Not Available	Not Available
xylene	TOXICITY	IRRITATION
	Inhalation (rat) LC50: 5000 ppm/4h	Eye (human): 200 ppm irritant
	Intraperitoneal (Mouse) LD50: 1548 mg/kg	Eye (rabbit): 5 mg/24h SEVERE
	Intraperitoneal (Rat) LD50: 2459 mg/kg	Eye (rabbit): 87 mg mild
	Oral (Mouse) LD50: 2119 mg/kg	Skin (rabbit):500 mg/24h moderate
	Oral (rat) LD50: 4300 mg/kg	
	Subcutaneous (Rat) LD50: 1700 mg/kg	
	Not Available	Not Available
methyl ethyl ketone	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 20000 mg/kg	- mild
	Dermal (rabbit) LD50: 6480 mg/kg	Eye (human): 350 ppm -irritant
	Inhalation (rat) LC50: 50100 mg/m ³ /8 hr	Eye (rabbit): 80 mg - irritant
	Inhalation (rat) LD50: 23500 mg/m ³ /8 hr	Skin (rabbit): 402 mg/24 hr - mild
	Oral (rat) LD50: 2737 mg/kg	Skin (rabbit):13.78mg/24 hr open
Not Available	Not Available	

tallowalkyldimethylammonium chloride/ bentonite quaternary	TOXICITY	IRRITATION
	Not Available	Not Available

PHENYL GLYCIDYL ETHER/ FORMALDEHYDE COPOLYMER	The following information refers to contact allergens as a group and may not be specific to this product.
MICROGLASSFLAKE RCL160 (FIBREGLASS REINFORCEMENTS)	Insulation wools belong to the generic group of man-made vitreous fibres (MMVF) also known as man-made mineral fibres (MMMF) or synthetic mineral fibres (SMF).
XYLENE	The material may produce severe irritation to the eye causing pronounced inflammation. Reproductive effector in rats
Thermaline 450 Part A, TALLOWALKYLDIMETHYLAMMONIUM CHLORIDE/ BENTONITE QUATERNARY	No significant acute toxicological data identified in literature search.

Acute Toxicity	Acute Toxicity (Oral) Category 4	Carcinogenicity	Carcinogen Category 2
Skin Irritation/Corrosion	Skin Corrosion/Irritation Category 2	Reproductive	Reproductive Toxicity Category 2
Serious Eye Damage/Irritation	Not Applicable	STOT - Single Exposure	Not Applicable
Respiratory or Skin sensitisation	Skin Sensitizer Category 1	STOT - Repeated Exposure	STOT - RE Category 2
Mutagenicity	Germ Cell Mutagen Category 1	Aspiration Hazard	Not Applicable

CMR STATUS**SECTION 12 ECOLOGICAL INFORMATION****Toxicity**

Harmful to aquatic organisms.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
Not Available	Not Available	Not Available

Bioaccumulative potential

Ingredient	Bioaccumulation
Not Available	Not Available


Mobility in soil

Ingredient	Mobility
Not Available	Not Available

SECTION 13 DISPOSAL CONSIDERATIONS**Waste treatment methods**

Product / Packaging disposal	Containers may still present a chemical hazard/ danger when empty.
	Insure that the disposal of material is carried out in accordance with Hazardous Substances (Disposal) Regulations 2001.

SECTION 14 TRANSPORT INFORMATION**Labels Required**

	
Marine Pollutant: NO	
HAZCHEM	*3YE; *3Y

Land transport (UN)

UN number	1263
Packing group	II

UN proper shipping name	PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound)
Environmental hazard	No relevant data
Transport hazard class(es)	Class : 3 Subrisk :
Special precautions for user	Special provisions : 163;367 limited quantity : 5 L

Air transport (ICAO-IATA / DGR)

UN number	1263
Packing group	II
UN proper shipping name	Paint related material (including paint thinning or reducing compounds); Paint (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base)
Environmental hazard	No relevant data
Transport hazard class(es)	ICAO/IATA Class : 3 ICAO / IATA Subrisk : ERG Code : 3L
Special precautions for user	Special provisions : A3A72 Cargo Only Packing Instructions : 364 Cargo Only Maximum Qty / Pack : 60 L Passenger and Cargo Packing Instructions : 353 Passenger and Cargo Maximum Qty / Pack : 5 L Passenger and Cargo Limited Quantity Packing Instructions : Y341 Passenger and Cargo Maximum Qty / Pack : 1 L

Sea transport (IMDG-Code / GGVSee)

UN number	1263
Packing group	II
UN proper shipping name	PAINT (including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound)
Environmental hazard	No relevant data
Transport hazard class(es)	IMDG Class : 3 IMDG Subrisk :
Special precautions for user	EMS Number : F-E,S-E Special provisions : 163 Limited Quantities : 5 L

SECTION 15 REGULATORY INFORMATION**Safety, health and environmental regulations / legislation specific for the substance or mixture**

This substance is to be managed using the conditions specified in an applicable Group Standard

HSR Number	Group Standard
HSR002669	Surface Coatings and Colourants (Flammable, Toxic [6.7]) Group Standard 2006

phenyl glycidyl ether/ formaldehyde copolymer(28064-14-4) is found on the following regulatory lists	"New Zealand Inventory of Chemicals (NZIoC)", "Sigma-AldrichTransport Information", "New Zealand Land Transport Rule: Dangerous Goods 2005 - Schedule 1 Quantity limits", "International Air Transport Association (IATA) Dangerous Goods Regulations", "International Maritime Dangerous Goods Requirements (IMDG Code)", "Belgium Federal Public Service Mobility and Transport, Regulations concerning the International Carriage of Dangerous Goods by Rail - Table A: Dangerous Goods List - RID 2013 (Dutch)", "International Maritime Dangerous Goods Requirements (IMDG Code) - Substance Index"
Microglassflake RCL160 (fibreglass reinforcements)(65997-17-3) is found on the following regulatory lists	"New Zealand Inventory of Chemicals (NZIoC)", "OECD List of High Production Volume (HPV) Chemicals", "FisherTransport Information", "Sigma-AldrichTransport Information", "International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs"
xylene(1330-20-7) is found on the following regulatory lists	"International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs", "New Zealand Inventory of Chemicals (NZIoC)", "International Council of Chemical Associations (ICCA) - High Production Volume List", "International Fragrance Association (IFRA) Survey: Transparency List", "FisherTransport Information", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data", "International Air Transport Association (IATA) Dangerous Goods Regulations", "International Maritime Dangerous Goods Requirements (IMDG Code)", "Belgium Federal Public Service Mobility and Transport, Regulations concerning the International Carriage of Dangerous Goods by Rail - Table A: Dangerous

	Goods List - RID 2013 (Dutch)", "International Maritime Dangerous Goods Requirements (IMDG Code) - Substance Index", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR List of Chemicals for Priority Action", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "IMO IBC Code Chapter 17: Summary of minimum requirements", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO Provisional Categorization of Liquid Substances - List 3: (Trade-named) mixtures containing at least 99% by weight of components already assessed by IMO, presenting safety hazards", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Dangerous Goods", "WHO Guidelines for Drinking-water Quality - Guideline values for chemicals that are of health significance in drinking-water", "New Zealand Workplace Exposure Standards (WES)"
methyl ethyl ketone(78-93-3) is found on the following regulatory lists	"New Zealand Inventory of Chemicals (NZIoC)", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "IMO IBC Code Chapter 17: Summary of minimum requirements", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Dangerous Goods", "OECD List of High Production Volume (HPV) Chemicals", "International Fragrance Association (IFRA) Survey: Transparency List", "IOFI Global Reference List of Chemically Defined Substances", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "FisherTransport Information", "Sigma-AldrichTransport Information", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data", "New Zealand Workplace Exposure Standards (WES)", "International Air Transport Association (IATA) Dangerous Goods Regulations", "International Maritime Dangerous Goods Requirements (IMDG Code)", "Belgium Federal Public Service Mobility and Transport, Regulations concerning the International Carriage of Dangerous Goods by Rail - Table A: Dangerous Goods List - RID 2013 (Dutch)", "International Maritime Dangerous Goods Requirements (IMDG Code) - Substance Index", "United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances - Table II", "United Nations List of Precursors and Chemicals Frequently used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances Under International Control (Red List) - Table II", "OSPAR National List of Candidates for Substitution – Norway"
tallowalkyldimethylammonium chloride/bentonite quaternary(71011-24-0) is found on the following regulatory lists	"New Zealand Inventory of Chemicals (NZIoC)", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR National List of Candidates for Substitution – United Kingdom", "OSPAR National List of Candidates for Substitution – Norway", "WHO Guidelines for Drinking-water Quality - Chemicals for which guideline values have not been established"

SECTION 16 OTHER INFORMATION

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 (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment.

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Thermaline 450 Part B

ChemWatch

Chemwatch: 9-46393
Version No: 1.2
Safety Data Sheet according to HSNO Regulations

Chemwatch Hazard Alert Code: 3

Issue Date: 15/01/2014
Print Date: 15/01/2014
S.GHS.NZLEN

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

Product Identifier

Product name	Thermaline 450 Part B
Chemical Name	Not Applicable
Synonyms	Not Available
Proper shipping name	CORROSIVE LIQUID, TOXIC, N.O.S.
Chemical formula	Not Applicable
Other means of identification	Not Available
CAS number	Not Applicable

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

Relevant identified uses	Use according to manufacturer's directions. Part B of a two pack coating
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Details of the supplier of the safety data sheet

Registered company name	ChemWatch
Address	Australia
Telephone	Not Available
Fax	Not Available
Website	Not Available
Email	Not Available

Emergency telephone number

Association / Organisation	Not Available
Emergency telephone numbers	Not Available
Other emergency telephone numbers	Not Available

CHEMWATCH EMERGENCY RESPONSE

Primary Number	Alternative Number 1	Alternative Number 2
+800 2436 2255	+612 9186 1132	Not Available

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

Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation.

GHS Classification ^[1]	Acute Toxicity (Dermal) Category 3, Acute Toxicity (Inhalation) Category 2, Skin Corrosion/Irritation Category 1B, Serious Eye Damage Category 1, Skin Sensitizer Category 1, Chronic Aquatic Hazard Category 4
Legend:	1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI
Determined by Chemwatch using GHS/HSNO criteria	6.1B (inhalation), 6.1C (dermal), 6.5B (contact), 8.2B, 8.3A, 9.1D

Label elements

GHS label elements	
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SIGNAL WORD	DANGER
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Hazard statement(s)

H311	Toxic in contact with skin
H330	Fatal if inhaled
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H317	May cause an allergic skin reaction
H413	May cause long lasting harmful effects to aquatic life

Supplementary statement(s)

Not Applicable

Precautionary statement(s): Prevention

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P273	Avoid release to the environment.
P284	[In case of inadequate ventilation] wear respiratory protection.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary statement(s): Response

P301+P330+P331	IF SWALLOWED: Rinse mouth.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes.
P310	Immediately call a POISON CENTER/doctor/physician/first aider
P320	Specific treatment is urgent (see advice on this label).
P302+P352	IF ON SKIN: Wash with plenty of water and soap
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Precautionary statement(s): Storage

P403+P233	Store in a well-ventilated place.
P405	Store locked up.

Precautionary statement(s): Disposal

P501	Dispose of contents/container to authorised chemical landfill or if organic to high temperature incineration
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SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS**Substances**

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
98-00-0	30-40	furfuryl alcohol

SECTION 4 FIRST AID MEASURES

NZ Poisons Centre 0800 POISON (0800 764 766) | NZ Emergency Services: 111

Description of first aid measures

Eye Contact	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> ▶ Immediately hold eyelids apart and flush the eye continuously with 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. ▶ Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. ▶ Transport to hospital or doctor without delay. ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	<p>If skin or hair contact occurs:</p> <ul style="list-style-type: none"> ▶ Immediately flush body and clothes with large amounts of water, using safety shower if available. ▶ Quickly remove all contaminated clothing, including footwear. ▶ Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. ▶ Transport to hospital, or doctor.

Thermaline 450 Part B

Inhalation	<ul style="list-style-type: none"> ▸ If fumes or combustion products are inhaled remove from contaminated area. ▸ Lay patient down. Keep warm and rested. ▸ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. ▸ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. ▸ Transport to hospital, or doctor, without delay.
Ingestion	<ul style="list-style-type: none"> ▸ For advice, contact a Poisons Information Centre or a doctor at once. ▸ Urgent hospital treatment is likely to be needed. ▸ 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. ▸ Transport to hospital or doctor without delay.

Indication of any immediate medical attention and special treatment needed

	Treat symptomatically.
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SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

	▸ Foam.
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Special hazards arising from the substrate or mixture

Fire Incompatibility	None known.
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Advice for firefighters

Fire Fighting	▸ Alert Fire Brigade and tell them location and nature of hazard.
Fire/Explosion Hazard	▸ Combustible.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Minor Spills	Environmental hazard - contain spillage.
Major Spills	Environmental hazard - contain spillage.

	Personal Protective Equipment advice is contained in Section 8 of the MSDS.
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SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	▸ Avoid all personal contact, including inhalation.
Other information	▸ Store in original containers.

Conditions for safe storage, including any incompatibilities

Suitable container	▸ Metal can or drum
Storage incompatibility	None known



X — Must not be stored together

O — May be stored together with specific preventions

+ — May be stored together

PACKAGE MATERIAL INCOMPATIBILITIES

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA


Source	Ingredient	Material name	TWA	STEL	Peak	Notes
New Zealand Workplace Exposure Standards (WES)	furfuryl alcohol	Furfuryl alcohol	40 (mg/m3) / 10 (ppm)	60 (mg/m3) / 15 (ppm)	Not Available	Skin absorption

EMERGENCY LIMITS

Ingredient	TEEL-0	TEEL-1	TEEL-2	TEEL-3
furfuryl alcohol	15(ppm)	15(ppm)	15(ppm)	75(ppm)

Ingredient	Original IDLH	Revised IDLH
furfuryl alcohol	250(ppm)	75(ppm)

Exposure controls

Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard.
Personal protection	
Eye and face protection	► Chemical goggles.
Skin protection	See Hand protection below
Hand protection	► Wear chemical protective gloves, e.g. PVC.
Body protection	See Other protection below
Other protection	► Overalls.
Thermal hazards	

Recommended material(s)**GLOVE SELECTION INDEX**

Glove selection is based on a modified presentation of the:
Thermaline 450 Part B Not Available

Material	CPI

* CPI - Chemwatch Performance Index

Respiratory protection

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	A-AUS	-	A-PAPR-AUS / Class 1
up to 50 x ES	-	A-AUS / Class 1	-
up to 100 x ES	-	A-2	A-PAPR-2 ^

^ - 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)

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Appearance	amber liquid		
Physical state	Liquid	Relative density (Water = 1)	11.09
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	> 7	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	162	Molecular weight (g/mol)	Not Available
Flash point (°C)	95	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	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)	Not Available
Vapour pressure (kPa)	0.20	Gas group	Not Available

Solubility in water (g/L)	Immiscible	pH as a solution(1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	▮ Presence of incompatible materials.
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	Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may produce toxic effects.
Ingestion	The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion.
Skin Contact	Skin contact with the material may produce toxic effects; systemic effects may result following absorption.
Eye	The material can produce chemical burns to the eye following direct contact.
Chronic	Repeated or prolonged exposure to corrosives may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw.

Thermaline 450 Part B	TOXICITY	IRRITATION
	Not Available	Not Available
furfuryl alcohol	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 400 mg/kg	Eye (rabbit): 100 mg/24h moderate
	Inhalation (rat) LC50: 233 ppm/4h	
	Oral (rat) LD50: 177 mg/kg	
	Not Available	Not Available

Thermaline 450 Part B	The following information refers to contact allergens as a group and may not be specific to this product.
FURFURYL ALCOHOL	Asthma-like symptoms may continue for months or even years after exposure to the material ceases. Substance has been investigated as a tumorigen; and as a mutagen.

Acute Toxicity	Acute Toxicity (Dermal) Category 3 Acute Toxicity (Inhalation) Category 2	Carcinogenicity	Not Applicable
Skin Irritation/Corrosion	Skin Corrosion/Irritation Category 1B	Reproductivity	Not Applicable
Serious Eye Damage/Irritation	Serious Eye Damage Category 1	STOT - Single Exposure	Not Applicable
Respiratory or Skin sensitisation	Skin Sensitizer Category 1	STOT - Repeated Exposure	Not Applicable
Mutagenicity	Not Applicable	Aspiration Hazard	Not Applicable

CMR STATUS

SKIN	furfuryl alcohol	New Zealand Workplace Exposure Standards (WES) - Skin	Skin absorption
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SECTION 12 ECOLOGICAL INFORMATION

Toxicity

May cause long-term adverse effects in the aquatic environment.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
Not Available	Not Available	Not Available

Bioaccumulative potential

Ingredient	Bioaccumulation
Not Available	Not Available

Mobility in soil

Ingredient	Mobility
Not Available	Not Available

SECTION 13 DISPOSAL CONSIDERATIONS**Waste treatment methods**

Product / Packaging disposal	Containers may still present a chemical hazard/ danger when empty.
	Insure that the disposal of material is carried out in accordance with Hazardous Substances (Disposal) Regulations 2001.

SECTION 14 TRANSPORT INFORMATION**Labels Required**

	
Marine Pollutant: NO	
HAZCHEM	2X

Land transport (UN)

UN number	2922
Packing group	III
UN proper shipping name	CORROSIVE LIQUID, TOXIC, N.O.S.
Environmental hazard	No relevant data
Transport hazard class(es)	Class : 8 Subrisk : 6.1
Special precautions for user	Special provisions : 223,274 limited quantity : 5 L

Air transport (ICAO-IATA / DGR)

UN number	2922
Packing group	III
UN proper shipping name	Corrosive liquid, toxic, n.o.s. *
Environmental hazard	No relevant data
Transport hazard class(es)	ICAO/IATA Class : 8 ICAO / IATA Subrisk : 6.1 ERG Code : 8P
Special precautions for user	Special provisions : A3A803 Cargo Only Packing Instructions : 856 Cargo Only Maximum Qty / Pack : 60 L Passenger and Cargo Packing Instructions : 852 Passenger and Cargo Maximum Qty / Pack : 5 L Passenger and Cargo Limited Quantity Packing Instructions : Y841 Passenger and Cargo Maximum Qty / Pack : 1 L

Sea transport (IMDG-Code / GGVSee)

UN number	2922
Packing group	III
UN proper shipping name	CORROSIVE LIQUID, TOXIC, N.O.S.
Environmental hazard	No relevant data
Transport hazard class(es)	IMDG Class : 8 IMDG Subrisk : 6.1

Special precautions for user

EMS Number	F-A,S-B
Special provisions	223 274
Limited Quantities	5 L

SECTION 15 REGULATORY INFORMATION**Safety, health and environmental regulations / legislation specific for the substance or mixture**

This substance is to be managed using the conditions specified in an applicable Group Standard

HSR Number	Group Standard
HSR002677	Surface Coatings and Colourants (Toxic [6.1], Corrosive) Group Standard 2006

furfuryl alcohol(98-00-0) is found on the following regulatory lists

"New Zealand Inventory of Chemicals (NZIoC)", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "IMO IBC Code Chapter 17: Summary of minimum requirements", "OECD List of High Production Volume (HPV) Chemicals", "International Council of Chemical Associations (ICCA) - High Production Volume List", "International Fragrance Association (IFRA) Survey: Transparency List", "IOFI Global Reference List of Chemically Defined Substances", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "International Fragrance Association (IFRA) Standards Prohibited", "FisherTransport Information", "Sigma-AldrichTransport Information", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data", "New Zealand Workplace Exposure Standards (WES)", "International Air Transport Association (IATA) Dangerous Goods Regulations", "International Maritime Dangerous Goods Requirements (IMDG Code)", "Belgium Federal Public Service Mobility and Transport, Regulations concerning the International Carriage of Dangerous Goods by Rail - Table A: Dangerous Goods List - RID 2013 (Dutch)", "International Maritime Dangerous Goods Requirements (IMDG Code) - Substance Index"

SECTION 16 OTHER INFORMATION**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 (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment.

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