

ARMOURCOTE 821 HARDENER

RESENE PAINTS LTD

Chemwatch: 9-70069

Version No: 1.3

Safety Data Sheet according to HSNO Regulations

Chemwatch Hazard Alert Code: 2

Issue Date: 08/07/2014

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S.GHS.NZLEN

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

Product Identifier

Product name	ARMOURCOTE 821 HARDENER
Chemical Name	Not Applicable
Synonyms	9434
Proper shipping name	Not Applicable
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.
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Details of the manufacturer/importer

Registered company name	RESENE PAINTS LTD		
Address	32-50 Vogel Street, Lower Hutt, Wellington New Zealand		
Telephone	+64 4 5770500		
Fax	+64 4 5773327		
Website	www.resene.co.nz		
Email	advice@resene.co.nz		

Emergency telephone number

Association / Organisation	Not Available		
Emergency telephone numbers	0800 737363		
Other emergency telephone numbers	0800 737363		

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.
Not regulated for transport of Dangerous Goods.**

GHS Classification ^[1]	Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Skin Sensitizer Category 1, Chronic 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	6.3A, 6.4A, 6.5B (contact), 9.1C

Label elements

GHS label elements	
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ARMOURCOTE 821 HARDENER

SIGNAL WORD

WARNING

Hazard statement(s)

H315	Causes skin irritation
H319	Causes serious eye irritation
H317	May cause an allergic skin reaction
H412	Harmful to aquatic life with long lasting effects

Precautionary statement(s): Prevention

P280	Wear protective gloves/protective clothing/eye protection/face protection.
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Precautionary statement(s): Response

P321	Specific treatment (see advice on this label).
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Precautionary statement(s): Storage

Not Applicable

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
68131-40-8	<10	alcohols C11-15 secondary ethoxylated
107-98-2	5-10	propylene glycol monomethyl ether - mixture of isomers
25068-38-6	<10	bisphenol A/ epichlorohydrin resin, liquid
100-51-6	2-5	benzyl alcohol
25265-77-4	<5	2,2,4-trimethyl-1,3-pentanediol monoisobutyrate
28064-14-4	<5	phenyl glycidyl ether/ formaldehyde copolymer

SECTION 4 FIRST AID MEASURES

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

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.
Skin Contact	If skin contact occurs: ▶ Immediately remove all contaminated clothing, including footwear. ▶ Flush skin and hair with running water (and soap if available). ▶ Seek medical attention in event of irritation.
Inhalation	▶ 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.
Ingestion	▶ Immediately give a glass of water. ▶ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Indication of any immediate medical attention and special treatment needed

	Treat symptomatically.
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SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

	▶ Water spray or fog.
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Special hazards arising from the substrate or mixture

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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

► 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.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling

► **DO NOT allow clothing wet with material to stay in contact with skin**

The substance accumulates peroxides which may become hazardous only if it evaporates or is distilled or otherwise treated to concentrate the peroxides.

Other information

► Store in original containers.

Conditions for safe storage, including any incompatibilities

Suitable container

- Metal can or drum
- Packaging as recommended by manufacturer.

Storage incompatibility

Propylene glycol monomethyl ether:

- reacts violently with strong oxidisers, alkalis
- is incompatible with aliphatic amines, boranes, sulfuric acid, nitric acid, perchloric acid, caustics, isocyanates

Glycidyl ethers:

- may form unstable peroxides on storage in air, light, sunlight, UV light or other ionising radiation, trace metals - inhibitor should be maintained at adequate levels
- may polymerise in contact with heat, organic and inorganic free radical producing initiators
- may polymerise with evolution of heat in contact with oxidisers, strong acids, bases and amines
- react violently with strong oxidisers, permanganates, peroxides, acyl halides, alkalis, ammonium persulfate, bromine dioxide
- attack some forms of plastics, coatings, and rubber
- Avoid reaction with oxidising agents

PACKAGE MATERIAL INCOMPATIBILITIES

Not Available

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)	propylene glycol monomethyl ether - mixture of isomers	Propylene glycol monomethyl ether	369 mg/m3 / 100 ppm	553 mg/m3 / 150 ppm	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	TEEL-0	TEEL-1	TEEL-2	TEEL-3
propylene glycol monomethyl ether - mixture of isomers	100 ppm	150 ppm	300 ppm	750 ppm
bisphenol A/ epichlorohydrin resin, liquid	50 / 125 / 4 ppm	150 / 12.5 / 350 ppm	500 / 100 ppm	500 ppm
benzyl alcohol	10 ppm	60 ppm	150 ppm	150 ppm
2,2,4-trimethyl-1,3-pentanediol monoisobutyrate	25 ppm	75 ppm	500 ppm	500 ppm
phenyl glycidyl ether/ formaldehyde copolymer	15 ppm	50 ppm	350 ppm	500 ppm

Ingredient	Original IDLH	Revised IDLH
alcohols C11-15 secondary ethoxylated	Not Available	Not Available
propylene glycol monomethyl ether - mixture of isomers	Not Available	Not Available
bisphenol A/ epichlorohydrin resin, liquid	Not Available	Not Available

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benzyl alcohol	Not Available	Not Available
2,2,4-trimethyl-1,3-pentanediol monoisobutyrate	Not Available	Not Available
phenyl glycidyl ether/ formaldehyde copolymer	Not Available	Not Available

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	► Safety glasses with side shields.				
Skin protection	See Hand protection below				
Hands/feet protection	NOTE: ► The material may produce skin sensitisation in predisposed individuals.				
Body protection	See Other protection below				
Other protection	► Overalls.				
Thermal hazards	Not Available				

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

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

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Material	CPI
BUTYL	A
NEOPRENE	C
PVC	C
VITON	C

* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

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

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

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

Respiratory protection

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	A-AUS / Class 1 P2	-	A-PAPR-AUS / Class 1 P2
up to 25 x ES	Air-line*	A-2 P2	A-PAPR-2 P2
up to 50 x ES	-	A-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	Note that all of the monopropylene glycol ethers may exist in two isomeric forms, alpha or beta. [White translucent liquid]		
Physical state	Liquid	Relative density (Water = 1)	1.086
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	317
pH (as supplied)	8.9	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	143	Molecular weight (g/mol)	Not Available
Flash point (°C)	94	Taste	Not Available
Evaporation rate	0.53 BuAC = 1	Explosive properties	Not Available

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Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	11.9	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	1.6	Volatile Component (%vol)	50.71
Vapour pressure (kPa)	1.2	Gas group	Not Available
Solubility in water (g/L)	Miscible	pH as a solution(1%)	Not Available
Vapour density (Air = 1)	3.29	VOC g/L	115.0

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	► Unstable in the 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 respiratory irritation (as classified by EC Directives using animal models).
Ingestion	The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion".
Skin Contact	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.
Eye	Evidence exists, or practical experience predicts, that the material may cause eye irritation in a substantial number of individuals and/or may produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals.
Chronic	Practical experience shows that skin contact with the material is capable either of inducing a sensitisation reaction in a substantial number of individuals, and/or of producing a positive response in experimental animals.

ARMOURCOTE 821 HARDENER	TOXICITY Not Available	IRRITATION Not Available
alcohols C11-15 secondary ethoxylated	TOXICITY Dermal (rabbit) LD50: 11000 mg/kg Oral (rat) LD50: 5600 mg/kg Not Available	IRRITATION Skin (rabbit): 500 mg(open) mild Not Available
propylene glycol monomethyl ether - mixture of isomers	TOXICITY Dermal (rabbit) LD50: 13000 mg/kg Inhalation (rat) LC50: 10000 ppm/5 h. Oral (rat) LD50: 3739 mg/kg Not Available	IRRITATION Eye (rabbit) 230 mg mild Eye (rabbit) 500 mg/24 h. Skin (rabbit) 500 mg open - mild Not Available
bisphenol A/ epichlorohydrin resin, liquid	TOXICITY Oral (rat) LD50: 11400 mg/kg Not Available	IRRITATION Eye (rabbit): 100mg - Mild Not Available
benzyl alcohol	TOXICITY Dermal (rabbit) LD50: 2000 mg/kg Inhalation (rat) LC50: >4178 mg/m3/4h Inhalation (rat) LC50: 1000 ppm/8h Oral (rat) LD50: 1230 mg/kg Not Available	IRRITATION Eye (rabbit): 0.75 mg open SEVERE Skin (man): 16 mg/48h-mild Skin (rabbit):10 mg/24h open-mild Not Available
2,2,4-trimethyl-1,3-pentanediol monoisobutyrate	TOXICITY Dermal (g.pig) LD50: >16 ml/kg *** Dermal (None) Guinea: pig LD50>20 ml/kg Dermal (rabbit) LD50: >16 ml/kg *	IRRITATION Eyes - Moderate irritant * Skin - Slight irritant * Skin (rabbit): mild ***

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	Inhalation (rat) LC50: >3.55 mg/l/6h	
	Inhalation (rat) LC50: 1600 mg/kg ***	
	Oral (Mouse) LD50: 3200 mg/kg	
	Oral (rat) LD50: 3200 mg/kg	
	Oral (rat) LD50: 3200 mg/kg ***	
	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
	Not Available	Skin * (-) (-) Slight irritant
		Not Available

ALCOHOLS C11-15 SECONDARY ETHOXYLATED	Human beings have regular contact with alcohol ethoxylates through a variety of industrial and consumer products such as soaps, detergents, and other cleaning products .
PROPYLENE GLYCOL MONOMETHYL ETHER - MIXTURE OF ISOMERS	NOTE: Exposure of pregnant rats and rabbits to the substance did not give rise to teratogenic effects at concentrations up to 3000 ppm.
BENZYL ALCOHOL	The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic).
2,2,4-TRIMETHYL-1,3-PENTANEDIOL MONOISOBUTYRATE	Not a skin sensitiser (guinea pig, Magnusson-Kligman) *** Ames Test: negative *** Micronucleus, mouse: negative *** Not mutagenic *** No effects on fertility or foetal development seen in the rat *** * [SWIFT] ** [Eastman] *** [Perstop]
ARMOURCOTE 821 HARDENER, BISPHENOL A/ EPICHLOROHYDRIN RESIN, LIQUID, PHENYL GLYCIDYL ETHER/ FORMALDEHYDE COPOLYMER	The following information refers to contact allergens as a group and may not be specific to this product.
PROPYLENE GLYCOL MONOMETHYL ETHER - MIXTURE OF ISOMERS, 2,2,4-TRIMETHYL-1,3-PENTANEDIOL MONOISOBUTYRATE	The material may be irritating to the eye, with prolonged contact causing inflammation.

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 required to make classification available
 – Data available but does not fill the criteria for classification
 ☹ – Data Not Available to make classification

CMR STATUS

Not Applicable

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Harmful to aquatic organisms, 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
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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	Not Applicable

Land transport (UN): 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 73 / 78 and the IBC code

Source	Ingredient	Pollution Category
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	propylene glycol monomethyl ether - mixture of isomers	Z
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	benzyl alcohol	Y
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	2,2,4-trimethyl-1,3-pentanediol monoisobutyrate	Y

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
HSR002670	Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2006

alcohols C11-15 secondary ethoxylated(68131-40-8) is found on the following regulatory lists	"International Maritime Dangerous Goods Requirements (IMDG Code)", "International Maritime Dangerous Goods Requirements (IMDG Code) - Substance Index", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data", "New Zealand Inventory of Chemicals (NZIoC)", "United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (English)", "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)", "OSPAR National List of Candidates for Substitution – United Kingdom", "Sigma-Aldrich Transport Information", "United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (Spanish)", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals", "International Air Transport Association (IATA) Dangerous Goods Regulations", "International Fragrance Association (IFRA) Survey: Transparency List", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)", "New Zealand Land Transport Rule: Dangerous Goods 2005 - Schedule 1 Quantity limits"
propylene glycol monomethyl ether - mixture of isomers(107-98-2) is found on the following regulatory lists	"IOFI Global Reference List of Chemically Defined Substances", "International Council of Chemical Associations (ICCA) - High Production Volume List", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Maritime Dangerous Goods Requirements (IMDG Code)", "International Maritime Dangerous Goods Requirements (IMDG Code) - Substance Index", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data", "New Zealand Inventory of Chemicals (NZIoC)", "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", "Fisher Transport Information", "IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances", "United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (English)", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR National List of Candidates for Substitution – Norway", "New Zealand Workplace Exposure Standards (WES)", "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 Numbering System for Food Additives", "IMO IBC Code Chapter 18: List of products to which the Code does not apply", "OECD Existing Chemicals Database", "Sigma-Aldrich Transport Information", "United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (Spanish)", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "International Air Transport Association (IATA) Dangerous Goods Regulations", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Dangerous Goods", "International Fragrance Association (IFRA) Survey: Transparency List", "IMO IBC Code Chapter 17: Summary of minimum requirements", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)"
bisphenol A/ epichlorohydrin resin, liquid(25068-38-6) is found on the following regulatory lists	"International Maritime Dangerous Goods Requirements (IMDG Code)", "International Maritime Dangerous Goods Requirements (IMDG Code) - Substance Index", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data", "New Zealand Inventory of Chemicals (NZIoC)", "United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (English)", "OECD List of High Production Volume (HPV) Chemicals", "WHO Model List of Essential Medicines - Adults", "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)", "OSPAR National List of Candidates for Substitution – United Kingdom", "OECD Existing Chemicals Database", "Sigma-Aldrich Transport Information", "United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (Spanish)", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of

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	Chemicals", "International Air Transport Association (IATA) Dangerous Goods Regulations", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)", "New Zealand Land Transport Rule: Dangerous Goods 2005 - Schedule 1 Quantity limits"
benzyl alcohol(100-51-6) is found on the following regulatory lists	"International Council of Chemical Associations (ICCA) - High Production Volume List", "IOFI Global Reference List of Chemically Defined Substances", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Maritime Dangerous Goods Requirements (IMDG Code)", "International Fragrance Association (IFRA) Standards Restricted", "International Maritime Dangerous Goods Requirements (IMDG Code) - Substance Index", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data", "New Zealand Inventory of Chemicals (NZIoC)", "New Zealand Land Transport Rule: Dangerous Goods 2005 - Schedule 4 Quantity Limits for Dangerous Goods in Excepted Quantities", "United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (English)", "OECD List of High Production Volume (HPV) Chemicals", "Joint FAO/WHO Expert Committee on Food Additives (JECFA) - Specifications for Flavours", "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 Numbering System for Food Additives", "New Zealand Cosmetic Products Group Standard - Schedule 7: Preservatives Cosmetic Products May Contain With Restrictions - Table 1: List of Preservatives Allowed", "OECD Existing Chemicals Database", "Sigma-Aldrich Transport Information", "United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (Spanish)", "New Zealand Cosmetic Products Group Standard - Schedule 5 - Table 1: Components Cosmetic Products Must Not Contain Except Subject to the Restrictions and Conditions Laid Down", "New Zealand Land Transport Rule: Dangerous Goods 2005 - Schedule 2 Dangerous Goods in Limited Quantities and Consumer Commodities", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals", "International Fragrance Association IFRA Standards Annex I", "International Air Transport Association (IATA) Dangerous Goods Regulations", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Dangerous Goods", "International Fragrance Association (IFRA) Survey: Transparency List", "IMO IBC Code Chapter 17: Summary of minimum requirements", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)", "Acros Transport Information"
2,2,4-trimethyl-1,3-pentanediol monoisobutyrate(25265-77-4) is found on the following regulatory lists	"IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data", "New Zealand Inventory of Chemicals (NZIoC)", "Fisher Transport Information", "OECD List of High Production Volume (HPV) Chemicals", "OECD Existing Chemicals Database", "Sigma-Aldrich Transport Information", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)"
phenyl glycidyl ether/ formaldehyde copolymer(28064-14-4) is found on the following regulatory lists	"International Council of Chemical Associations (ICCA) - High Production Volume List", "IOFI Global Reference List of Chemically Defined Substances", "International Maritime Dangerous Goods Requirements (IMDG Code)", "International Maritime Dangerous Goods Requirements (IMDG Code) - Substance Index", "New Zealand Inventory of Chemicals (NZIoC)", "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", "IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances", "Fisher Transport Information", "United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (English)", "OECD List of High Production Volume (HPV) Chemicals", "New Zealand Workplace Exposure Standards (WES)", "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 Numbering System for Food Additives", "IMO IBC Code Chapter 18: List of products to which the Code does not apply", "OECD Existing Chemicals Database", "Sigma-Aldrich Transport Information", "United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (Spanish)", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "International Air Transport Association (IATA) Dangerous Goods Regulations", "International Fragrance Association (IFRA) Survey: Transparency List", "New Zealand Land Transport Rule: Dangerous Goods 2005 - Schedule 1 Quantity limits"

Location Test Certificate

Subject to Regulation 55 of the Hazardous Substances (Classes 1 to 5 Controls) Regulations a location test certificate is required when quantity greater than or equal to those indicated below are present.

Hazard Class	Quantity beyond which controls apply for closed containers	Quantity beyond which controls apply when use occurring in open containers
Not Applicable	Not Applicable	Not Applicable

Approved Handler

Subject to Regulation 56 of the Hazardous Substances (Classes 1 to 5 Controls) Regulations, the substance must be under the personal control of an Approved Handler when present in a quantity greater than or equal to those indicated below.

Class of substance	Quantities
Not Applicable	Not Applicable

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.

A list of reference resources used to assist the committee may be found at:

www.chemwatch.net/references

The (M)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.

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