

ARMOURCOTE 821 BASE

RESENE PAINTS LTD

Chemwatch: 9-70296

Version No: 1.3

Safety Data Sheet according to HSNO Regulations

Chemwatch Hazard Alert Code: 2

Issue Date: 03/07/2014

Print Date: 10/07/2014

Initial Date: 10/07/2014

S.GHS.NZLEN

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

Product Identifier

Product name	ARMOURCOTE 821 BASE
Chemical Name	Not Applicable
Synonyms	9430
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains zinc oxide fume and zinc phosphate)
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.
--------------------------	---

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.
Classified as Dangerous Goods for transport purposes.**

GHS Classification [1]	Flammable Liquid Category 4, Eye Irritation Category 2B, Respiratory Sensitizer Category 1, Skin Sensitizer Category 1, STOT - RE Category 2, Acute Aquatic Hazard Category 2, Chronic Aquatic Hazard Category 1
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	3.1D, 6.4A (mild), 6.5A (respiratory), 6.5B (contact), 6.9B, 9.1A, 9.1D

Label elements

GHS label elements	
--------------------	--

SIGNAL WORD

DANGER

Hazard statement(s)

H227	Combustible liquid
H320	Causes eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H317	May cause an allergic skin reaction
H373	May cause damage to organs through prolonged or repeated exposure
H401	Toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Precautionary statement(s): Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
------	--

Precautionary statement(s): Response

P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
-----------	--

Precautionary statement(s): Storage

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

Precautionary statement(s): Disposal

P501	Dispose of contents/container to authorised chemical landfill or if organic to high temperature incineration
------	--

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
10101-39-0	<5	calcium metasilicate
1314-13-2	1-5	zinc oxide fume
95-14-7	<1	1H-benzotriazole
7779-90-0	<20	zinc phosphate
1313-27-5	<1	molybdenum(VI) oxide
68131-40-8	2-5	alcohols C11-15 secondary ethoxylated
25322-68-3	<1	polyethylene glycol
1308-38-9	<1	C.I. Pigment Green 17
13463-67-7	10-15	titanium dioxide
21645-51-2	<2	aluminium hydroxide
7631-86-9	<2	silica amorphous
5131-66-8	1-3	propylene glycol monobutyl ether - alpha isomer
34590-94-8	<5	dipropylene glycol monomethyl ether
68611-44-9	1-3	silica amorphous, fumed
84133-50-6	<1	alcohols C12-14 secondary ethoxylated
1477-55-0	1-3	benzene-1,3-dimethanamine
2855-13-2	<3	isophorone diamine

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. If this product comes in contact with eyes: ▶ Wash out immediately with water. ▶ If irritation continues, seek medical attention. ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
-------------	---

ARMOURCOTE 821 BASE

Skin Contact	If skin or hair contact occurs: ▶ Flush skin and hair with running water (and soap if available). ▶ Seek medical attention in event of irritation. 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	▶ 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. ▶ Immediately give a glass of water. ▶ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor. ▶ If swallowed do NOT induce vomiting. ▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ▶ Observe the patient carefully. ▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ▶ Seek medical advice. ▶ Avoid giving milk or oils. ▶ Avoid giving alcohol. ▶ If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.

Indication of any immediate medical attention and special treatment needed

	For acute or short term repeated exposures to petroleum distillates or related hydrocarbons: ▶ Primary threat to life, from pure petroleum distillate 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) 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. ▶ Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients. [Ellenhorn and Barceloux: Medical Toxicology] Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours. for phosphate salts intoxication: ▶ All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. ▶ Ingestion of large quantities of phosphate salts (over 1.0 grams for an adult) may cause an osmotic catharsis resulting in diarrhoea and probable abdominal cramps. Larger doses such as 4-8 grams will almost certainly cause these effects in everyone. In healthy individuals most of the ingested salt will be excreted in the faeces with the diarrhoea and, thus, not cause any systemic toxicity. Doses greater than 10 grams hypothetically may cause systemic toxicity. ▶ Treatment should take into consideration both anionic and cation portion of the molecule. ▶ All phosphate salts, except calcium salts, have a hypothetical risk of hypocalcaemia, so calcium levels should be monitored.
--	---

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

▶ Combustible.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Minor Spills

▶ Remove all ignition sources.

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

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

▶ Limit all unnecessary personal contact.

Other information

▶ Store in original containers.

Conditions for safe storage, including any incompatibilities

Suitable container

▶ Polyethylene or polypropylene container.

Storage incompatibility

Derivative of electronegative and electropositive metals.

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)	calcium metasilicate	Calcium silicate	10 mg/m3	Not Available	Not Available	The value for inhalable dust containing no asbestos and less than 1% free silica.
New Zealand Workplace Exposure Standards (WES)	zinc oxide fume	Zinc oxide Dust / Zinc oxide fume	10 mg/m3 / 5 mg/m3	10 mg/m3	Not Available	The value for inhalable dust containing no asbestos and less than 1% free silica.
New Zealand Workplace Exposure Standards (WES)	zinc phosphate	Particulates not otherwise classified	10 Inhalable dust; 3 Respirable dust mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	molybdenum(VI) oxide	Molybdenum, as Mo Insoluble compounds	10 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	titanium dioxide	Titanium dioxide	10 mg/m3	Not Available	Not Available	The value for inhalable dust containing no asbestos and less than 1% free silica.
New Zealand Workplace Exposure Standards (WES)	silica amorphous	Silica-Amorphous / Silica Amorphous, Diatomaceous earth (not calcined)	10 mg/m3	Not Available	Not Available	The value for inhalable dust containing no asbestos and less than 1% free silica.;
New Zealand Workplace Exposure Standards (WES)	silica amorphous	Silica fume	2 (Respirable dust) mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	silica amorphous	Silica Amorphous, fused	0.2 (Respirable dust) mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	silica amorphous	Silica Amorphous, Precipitated silica	10 mg/m3	Not Available	Not Available	The value for inhalable dust containing no asbestos and less than 1% free silica.;
New Zealand Workplace Exposure Standards (WES)	dipropylene glycol monomethyl ether	Dipropylene glycol methyl ether	606 mg/m3 / 100 ppm	909 mg/m3 / 150 ppm	Not Available	Skin absorption
New Zealand Workplace Exposure Standards (WES)	benzene-1,3-dimethanamine	m-Xylene a,a'-diamine	Not Available	Not Available	0.1 mg/m3	Skin absorption

EMERGENCY LIMITS

Ingredient	TEEL-0	TEEL-1	TEEL-2	TEEL-3
------------	--------	--------	--------	--------

Continued...

ARMOURCOTE 821 BASE

calcium metasilicate	10 ppm	30 ppm	50 ppm	250 ppm
zinc oxide fume	15 ppm	15 ppm	15 ppm	500 ppm
1H-benzotriazole	0.025 ppm	0.075 ppm	0.5 ppm	250 ppm
zinc phosphate	2 ppm	6 ppm	50 ppm	250 ppm
molybdenum(VI) oxide	7.5 ppm	7.5 ppm	7.5 ppm	500 ppm
polyethylene glycol	10 ppm	60 ppm	500 ppm	500 ppm
C.I. Pigment Green 17	0.731 ppm	15 ppm	36.5 ppm	36.5 ppm
titanium dioxide	15 ppm	15 ppm	15 ppm	500 ppm
aluminium hydroxide	1.5 ppm	4.5 ppm	125 ppm	125 ppm
silica amorphous	0.3 / 2 / 6 / 10 ppm	6 / 18 / 15 / 30 / 0.9 ppm	125 / 30 / 50 / 10 / 1.5 / 200 ppm	500 / 250 / 50 ppm
dipropylene glycol monomethyl ether	100 ppm	150 ppm	150 ppm	400 ppm
silica amorphous, fumed	2 ppm	6 ppm	200 ppm	500 ppm

Ingredient	Original IDLH	Revised IDLH
calcium metasilicate	Not Available	Not Available
zinc oxide fume	2,500 mg/m3	500 mg/m3
1H-benzotriazole	Not Available	Not Available
zinc phosphate	Not Available	Not Available
molybdenum(VI) oxide	N.E. / N.E.	5,000 mg/m3
alcohols C11-15 secondary ethoxylated	Not Available	Not Available
polyethylene glycol	Not Available	Not Available
C.I. Pigment Green 17	Not Available	Not Available
titanium dioxide	N.E. / N.E.	5,000 mg/m3
aluminium hydroxide	Not Available	Not Available
silica amorphous	N.E. / N.E.	3,000 mg/m3
propylene glycol monobutyl ether - alpha isomer	Not Available	Not Available
dipropylene glycol monomethyl ether	Unknown mg/m3 / Unknown ppm	600 ppm
silica amorphous, fumed	N.E. / N.E.	3,000 mg/m3
alcohols C12-14 secondary ethoxylated	Not Available	Not Available
benzene-1,3-dimethanamine	Not Available	Not Available
isophorone diamine	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	Wear general protective gloves, eg. light weight rubber gloves.
Body protection	See Other protection below
Other protection	No special equipment needed when handling small quantities.
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:

ARMOURCOTE 821 BASE Not Available

Material	CPI
----------	-----

* 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

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	AK-AUS / Class 1 P2	-	AK-PAPR-AUS / Class 1 P2

Continued...

ARMOURCOTE 821 BASE

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.

up to 25 x ES	Air-line*	AK-2 P2	AK-PAPR-2 P2
up to 50 x ES	-	AK-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	Light green opaque liquid		
Physical state	Liquid	Relative density (Water = 1)	1.437
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	183
pH (as supplied)	10.4	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	190	Molecular weight (g/mol)	Not Available
Flash point (°C)	78	Taste	Not Available
Evaporation rate	0.02 BuAC = 1	Explosive properties	Not Available
Flammability	Combustible.	Oxidising properties	Not Available
Upper Explosive Limit (%)	8.5	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	1.1	Volatile Component (%vol)	55.5
Vapour pressure (kPa)	0.21	Gas group	Not Available
Solubility in water (g/L)	Miscible	pH as a solution(1%)	Not Available
Vapour density (Air = 1)	4.26	VOC g/L	101.1

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	Although inhalation is not thought to produce harmful effects (as classified under EC Directives), the material may still produce health damage, especially where pre-existing organ (e.g liver, kidney) damage is evident.
Ingestion	Swallowing of the liquid may cause aspiration of vomit into the lungs with the risk of haemorrhaging, pulmonary oedema, progressing to chemical pneumonitis; serious consequences may result.
Skin Contact	Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.
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	Repeated or long-term occupational exposure is likely to produce cumulative health effects involving organs or biochemical systems.

ARMOURCOTE 821 BASE	TOXICITY	IRRITATION
	Not Available	Not Available

ARMOURCOTE 821 BASE

calcium metasilicate	TOXICITY	IRRITATION
	Not Available	Not Available
zinc oxide fume	TOXICITY	IRRITATION
		Eye (rabbit): 500 mg/24h mild
		Skin (rabbit): 500 mg/24h mild
	Not Available	Not Available
1H-benzotriazole	TOXICITY	IRRITATION
	Dermal (Rabbit) LD50: >10000 mg/kg ****	Eye (rabbit): moderate *
	Inhalation (Rat) LC50: 1400 mg/m3/4h ***	Skin (rabbit): slight *
	Inhalation (Rat) LC50: 1910 mg/m3/3h	
	Oral (rat) LD50: 560 mg/kg **	
	Oral (rat) LD50: 700 mg/kg *	
	Not Available	Not Available
zinc phosphate	TOXICITY	IRRITATION
	Oral (rat) LD50: 15000 mg/kg	
	Not Available	Not Available
molybdenum(VI) oxide	TOXICITY	IRRITATION
	Dermal (rat) LD50: >2000 mg/kg	
	Inhalation (rat) LC50: >5840 mg/m3/4h	
	Intraperitoneal (mouse) LD50: 141 mg/kg	
	Oral (rat) LD50: 2689 mg/kg	
	Subcutaneous (mouse) LD50: 94 mg/kg	
	Not Available	Not Available
alcohols C11-15 secondary ethoxylated	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 11000 mg/kg	Skin (rabbit): 500 mg(open) mild
	Oral (rat) LD50: 5600 mg/kg	
	Not Available	Not Available
polyethylene glycol	TOXICITY	IRRITATION
	Intraperitoneal (Mouse) LD50: 473 mg/kg	Eye (rabbit): 500mg/24h - mild.
	Intraperitoneal (Mouse) LD50: 7500 mg/kg	Skin (rabbit): 500mg/24h - mild.
	Intraperitoneal (Rat) LD50: 12600 mg/kg	
	Intraperitoneal (Rat) LD50: 14100 mg/kg	
	Intraperitoneal (Rat) LD50: 15390 mg/kg	
	Intraperitoneal (Rat) LD50: 15570 mg/kg	
	Intraperitoneal (Rat) LD50: 17700 mg/kg	
	Intraperitoneal (Rat) LD50: 6790 mg/kg	
	Intraperitoneal (Rat) LD50: 9700 mg/kg	
	Intraperitoneal (Rat) LD50: 9708 mg/kg	
	Intravenous (Mouse) LD50: 7.9 mg/kg	
	Intravenous (Mouse) LD50: 8550 mg/kg	
	Intravenous (Rat) LD50: 7130 mg/kg	
	Intravenous (Rat) LD50: 7312 mg/kg	
	Intravenous (Rat) LD50: 7500 mg/kg	
	Oral (Guinea pig) LD50: 15700 mg/kg	
	Oral (Guinea pig) LD50: 19600 mg/kg	
	Oral (Guinea pig) LD50: 22500 mg/kg	
	Oral (Guinea pig) LD50: 28900 mg/kg	
	Oral (Guinea pig) LD50: 50900 mg/kg	
	Oral (Mouse) LD50: 28915 mg/kg	
	Oral (Rabbit) LD50: 17300 mg/kg	

ARMOURCOTE 821 BASE

	Oral (Rabbit) LD50: 26800 mg/kg	
	Oral (Rabbit) LD50: 28900 mg/kg	
	Oral (Rat) LD50: 1054 mg/kg	
	Oral (Rat) LD50: 27500 mg/kg	
	Oral (Rat) LD50: 30200 mg/kg	
	Oral (Rat) LD50: 31600 mg/kg	
	Oral (Rat) LD50: 31640 mg/kg	
	Oral (rat) LD50: 33750 mg/kg	
	Oral (Rat) LD50: 44200 mg/kg	
	Oral (Rat) LD50: 51200 mg/kg	
	Oral (Rat) LD50: 51310 mg/kg	
	Oral (Rat) LD50: 600 mg/kg	
	Not Available	Not Available
C.I. Pigment Green 17	TOXICITY	IRRITATION
	Not Available	Not Available
titanium dioxide	TOXICITY	IRRITATION
	Oral (Mouse) LD50: >10000 mg/kg *	Skin (human): 0.3 mg /3D (int)-mild *
	Oral (Rat) LD50: >20000 mg/kg *	
	Not Available	Not Available
aluminium hydroxide	TOXICITY	IRRITATION
	Not Available	Not Available
silica amorphous	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >5000 mg/kg *	* [Grace]
	Inhalation (rat) LC50: >0.139 mg/l/14h *	Eye (rabbit): non-irritating *
	Oral (rat) LD50: 3160 mg/kg	Skin (rabbit): non-irritating *
	Not Available	Not Available
propylene glycol monobutyl ether - alpha isomer	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 3100 mg/kg	as mixed isomers CAS RN 63716-40-5
	Dermal (rat) LD50: 3560 uL/kg	Eye (rabbit): 15 mg SEVERE
	Inhalation (rat) LC50: >1000 ppm/8h	Skin (rabbit): 500 mg OPEN - mild
	Oral (rat) LD50: 2830 uL/kg	
	Not Available	Not Available
dipropylene glycol monomethyl ether	TOXICITY	IRRITATION
	Dermal (Rabbit) LD50: 9500 mg/kg	Eye (human): 8 mg - mild
	Oral (rat) LD50: 5135 mg/kg	Eye (rabbit): 500 mg/24hr - mild
		Skin (rabbit): 238 mg - mild
		Skin (rabbit): 500 mg (open)-mild
	Not Available	Not Available
silica amorphous, fumed	TOXICITY	IRRITATION
	Oral (rat) LD50: >5000 mg/kg	[Wacker]
	Not Available	Not Available
alcohols C12-14 secondary ethoxylated	TOXICITY	IRRITATION
	Not Available	Not Available
benzene-1,3-dimethanamine	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 2000 mg/kg	Eye (rabbit): 0.05 mg/24h SEVERE
	Inhalation (rat) LC50: 700 ppm/1h	Skin (rabbit): 0.75 mg/24h SEVERE
	Oral (rat) LD50: 930 mg/kg	
	Not Available	Not Available

ARMOURCOTE 821 BASE

isophorone diamine	TOXICITY	IRRITATION
	Oral (rat) LD50: 1030 mg/kg	[Manufacturer HUE]
	Not Available	Not Available

ZINC OXIDE FUME	The material may be irritating to the eye, with prolonged contact causing inflammation.
1H-BENZOTRIAZOLE	Bacterial mutagenicity: E. Ames positive; HGPRT negative; micronucleus test (mouse) negative **** * [Ciba Geigy] ** [Bayer] *** Merck **** Benzotriazoles Coalition Synthetic Organic Chemical Manufacturers Association December, 2001
MOLYBDENUM(VI) OXIDE	Inhalation (rat) TCLo: 10 mg/m3/2h/90w-I Neoplastic by RTECS criteria
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 .
POLYETHYLENE GLYCOL	for polyethylene glycols Pure polyethylene glycols have essentially similar toxicity, with toxicity being inverse to molecular weights. for molecular weights (200-8000) * Oral (rat) LD50: 31000->50000 mg/kg Oral (mice) LD50: 38000->50000 mg/kg Oral (g.pig) LD50: 17000->50000 mg/kg Oral (rabbit) LD50: 14000->50000 mg/kg * AIHA WHEEL Guides Intraperitoneal (mice) LD50: 3100-12900 mg/kg
C.I. PIGMENT GREEN 17	Substance has been investigated as a mutagen in bacteria and rodents and a tumorigen by intraperitoneal, intrapleural and intratracheal administration to rats.
TITANIUM DIOXIDE	The material may produce moderate eye irritation leading to inflammation. * IUCLID
SILICA AMORPHOUS	Reports indicate high/prolonged exposures to amorphous silicas induced lung fibrosis in experimental animals; in some experiments these effects were reversible.
PROPYLENE GLYCOL MONOBUTYL ETHER - ALPHA ISOMER	for propylene glycol ethers (PGEs): Typical propylene glycol ethers include propylene glycol n-butyl ether (PnB); dipropylene glycol n-butyl ether (DPnB); dipropylene glycol methyl ether acetate (DPMA); tripropylene glycol methyl ether (TPM).
ALCOHOLS C12-14 SECONDARY ETHOXYLATED	Alcohol ethoxylates are according to CESIO (2000) classified as Irritant or Harmful depending on the number of EO-units: EO < 5 gives Irritant (Xi) with R38 (Irritating to skin) and R41 (Risk of serious damage to eyes) EO > 5-15 gives Harmful (Xn) with R22 (Harmful if swallowed) - R38/41 EO > 15-20 gives Harmful (Xn) with R22-41 >20 EO is not classified (CESIO 2000) Oxo-AE, C13 EO10 and C13 EO15, are Irritating (Xi) with R36/38 (Irritating to eyes and skin) .
ARMOURCOTE 821 BASE, C.I. PIGMENT GREEN 17, BENZENE-1,3-DIMETHANAMINE, ISOPHORONE DIAMINE	The following information refers to contact allergens as a group and may not be specific to this product.
CALCIUM METASILICATE, ALUMINIUM HYDROXIDE	No significant acute toxicological data identified in literature search.
1H-BENZOTRIAZOLE, MOLYBDENUM(VI) OXIDE, DIPROPYLENE GLYCOL MONOMETHYL ETHER	Asthma-like symptoms may continue for months or even years after exposure to the material ceases.
SILICA AMORPHOUS, SILICA AMORPHOUS, FUMED	For silica amorphous: When experimental animals inhale synthetic amorphous silica (SAS) dust, it dissolves in the lung fluid and is rapidly eliminated.

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

SKIN	dipropylene glycol monomethyl ether	New Zealand Workplace Exposure Standards (WES) - Skin	Skin absorption
	benzene-1,3-dimethanamine	New Zealand Workplace Exposure Standards (WES) - Skin	Skin absorption

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Toxic 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
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	
HAZCHEM	+3Z

Land transport (UN)

UN number	3082
Packing group	III
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains zinc oxide fume and zinc phosphate)
Environmental hazard	No relevant data
Transport hazard class(es)	Class : 9 Subrisk : Not Applicable
Special precautions for user	Special provisions : 274;331;335;375 Limited quantity : 5 L

Air transport (ICAO-IATA / DGR)

UN number	3082
Packing group	III
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. * (contains zinc oxide fume and zinc phosphate)
Environmental hazard	No relevant data
Transport hazard class(es)	ICAO/IATA Class : 9 ICAO / IATA Subrisk : Not Applicable ERG Code : 9L

ARMOURCOTE 821 BASE

Special precautions for user	Special provisions	A97A158
	Cargo Only Packing Instructions	964
	Cargo Only Maximum Qty / Pack	450 L
	Passenger and Cargo Packing Instructions	964
	Passenger and Cargo Maximum Qty / Pack	450 L
	Passenger and Cargo Limited Quantity Packing Instructions	Y964
	Passenger and Cargo Limited Maximum Qty / Pack	30 kg G

Sea transport (IMDG-Code / GGVSee)

UN number	3082
Packing group	III
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains zinc oxide fume and zinc phosphate)
Environmental hazard	No relevant data
Transport hazard class(es)	IMDG Class : 9
	IMDG Subrisk : Not Applicable
Special precautions for user	EMS Number : F-A , S-F
	Special provisions : 274 335
	Limited Quantities : 5 L

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	1H-benzotriazole	X
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	polyethylene glycol	Z
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	titanium dioxide	Z
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	isophorone diamine	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
HSR002657	Surface Coatings and Colourants

calcium metasilicate(10101-39-0) is found on the following regulatory lists	"International Council of Chemical Associations (ICCA) - High Production Volume List", "New Zealand Inventory of Chemicals (NZIoC)", "OECD List of High Production Volume (HPV) Chemicals", "New Zealand Workplace Exposure Standards (WES)", "International Numbering System for Food Additives", "OECD Existing Chemicals Database", "Sigma-AldrichTransport Information", "CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP"
zinc oxide fume(1314-13-2) is found on the following regulatory lists	"New Zealand Cosmetic Products Group Standard - Schedule 8: UV Filters Cosmetic Products May Contain With Restrictions - Table 2: Additional List of Permitted UV Filters which Cosmetic Products May contain in New Zealand", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data", "New Zealand Inventory of Chemicals (NZIoC)", "FisherTransport Information", "OECD List of High Production Volume (HPV) Chemicals", "International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs", "New Zealand Workplace Exposure Standards (WES)", "UNECE - Kiev Protocol on Pollutant Release and Transfer Registers - Annex II", "OECD Existing Chemicals Database", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Timber Preservatives, Antisapstains and Antifouling Paints", "Sigma-AldrichTransport Information", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals", "New Zealand Cosmetic Products Group Standard - Schedule 6 Colouring Agents Cosmetic Products May Contain With Restrictions- Table 1: List fo Colouring Agents Allowed for use in Cosmetic Products", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Veterinary Medicines", "International Fragrance Association (IFRA) Survey: Transparency List", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)"
1H-benzotriazole(95-14-7) is found on the following regulatory lists	"International Maritime Dangerous Goods Requirements (IMDG Code)", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "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", "IMO Provisional Categorization of Liquid Substances - List 2: Pollutant only mixtures containing at least 99% by weight of components already assessed by IMO", "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", "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)", "Sigma-AldrichTransport 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", "IMO IBC Code Chapter 17: Summary of minimum requirements", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)", "Acros Transport Information"

ARMOURCOTE 821 BASE

zinc phosphate(7779-90-0) 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", "International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs", "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)", "New Zealand Workplace Exposure Standards (WES)", "UNECE - Kiev Protocol on Pollutant Release and Transfer Registers - Annex II", "OECD Existing Chemicals Database", "Sigma-AldrichTransport 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", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)", "New Zealand Land Transport Rule: Dangerous Goods 2005 - Schedule 1 Quantity limits"
molybdenum(VI) oxide(1313-27-5) is found on the following regulatory lists	"International Council of Chemical Associations (ICCA) - High Production Volume List", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data", "New Zealand Inventory of Chemicals (NZIoC)", "FisherTransport Information", "OECD List of High Production Volume (HPV) Chemicals", "New Zealand Workplace Exposure Standards (WES)", "Sigma-AldrichTransport Information", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)"
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-AldrichTransport 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"
polyethylene glycol(25322-68-3) is found on the following regulatory lists	"IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "New Zealand Inventory of Chemicals (NZIoC)", "FisherTransport Information", "IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances", "OECD List of High Production Volume (HPV) Chemicals", "International Numbering System for Food Additives", "OSPAR National List of Candidates for Substitution – United Kingdom", "Sigma-AldrichTransport Information", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "International Fragrance Association (IFRA) Survey: Transparency List", "IMO IBC Code Chapter 17: Summary of minimum requirements", "Acros Transport Information"
C.I. Pigment Green 17(1308-38-9) is found on the following regulatory lists	"International Council of Chemical Associations (ICCA) - High Production Volume List", "New Zealand Inventory of Chemicals (NZIoC)", "United Nations Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or Not Approved by Governments", "OECD List of High Production Volume (HPV) Chemicals", "Sigma-AldrichTransport Information", "New Zealand Cosmetic Products Group Standard - Schedule 6 Colouring Agents Cosmetic Products May Contain With Restrictions- Table 1: List of Colouring Agents Allowed for use in Cosmetic Products", "Acros Transport Information"
titanium dioxide(13463-67-7) is found on the following regulatory lists	"IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "New Zealand Inventory of Chemicals (NZIoC)", "FisherTransport Information", "OECD List of High Production Volume (HPV) Chemicals", "International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs", "New Zealand Workplace Exposure Standards (WES)", "International Numbering System for Food Additives", "OECD Existing Chemicals Database", "Sigma-AldrichTransport Information", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "New Zealand Cosmetic Products Group Standard - Schedule 6 Colouring Agents Cosmetic Products May Contain With Restrictions- Table 1: List of Colouring Agents Allowed for use in Cosmetic Products", "CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP", "International Fragrance Association (IFRA) Survey: Transparency List", "IMO IBC Code Chapter 17: Summary of minimum requirements", "New Zealand Cosmetic Products Group Standard - Schedule 8: UV Filters Cosmetic Products May Contain With Restrictions - Table 1: List of Permitted UV Filters which Cosmetic Products may contain"
aluminium hydroxide(21645-51-2) is found on the following regulatory lists	"International Council of Chemical Associations (ICCA) - High Production Volume List", "New Zealand Inventory of Chemicals (NZIoC)", "OECD List of High Production Volume (HPV) Chemicals", "Sigma-AldrichTransport Information"
silica amorphous(7631-86-9) is found on the following regulatory lists	"International Council of Chemical Associations (ICCA) - High Production Volume List", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data", "New Zealand Inventory of Chemicals (NZIoC)", "FisherTransport Information", "OECD List of High Production Volume (HPV) Chemicals", "International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs", "New Zealand Workplace Exposure Standards (WES)", "International Numbering System for Food Additives", "OECD Existing Chemicals Database", "Sigma-AldrichTransport Information", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals", "CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP", "International Fragrance Association (IFRA) Survey: Transparency List", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)", "Acros Transport Information"
propylene glycol monobutyl ether - alpha isomer(5131-66-8) is found on the following regulatory lists	"International Council of Chemical Associations (ICCA) - High Production Volume List", "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", "OSPAR National List of Candidates for Substitution – Norway", "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)", "OECD Existing Chemicals Database", "Sigma-AldrichTransport 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", "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"
dipropylene glycol monomethyl ether(34590-94-8) is found on the following regulatory lists	"International Council of Chemical Associations (ICCA) - High Production Volume List", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data", "New Zealand Inventory of Chemicals (NZIoC)", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR National List of Candidates for Substitution – Norway", "New Zealand Workplace Exposure Standards (WES)", "OECD Existing Chemicals Database", "Sigma-AldrichTransport Information", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals", "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"
silica amorphous, fumed(68611-44-9) is found on the following regulatory lists	"International Council of Chemical Associations (ICCA) - High Production Volume List", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data", "New Zealand Inventory of Chemicals (NZIoC)", "OECD List of High Production Volume (HPV) Chemicals", "OECD Existing Chemicals Database", "Sigma-AldrichTransport Information", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals", "International Fragrance Association (IFRA) Survey: Transparency List"

ARMOURCOTE 821 BASE

	Transparency List", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)"
alcohols C12-14 secondary ethoxylated(84133-50-6) 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", "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", "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"
benzene-1,3-dimethanamine(1477-55-0) is found on the following regulatory lists	"International Council of Chemical Associations (ICCA) - High Production Volume List", "International Maritime Dangerous Goods Requirements (IMDG Code)", "International Maritime Dangerous Goods Requirements (IMDG Code) - Substance Index", "New Zealand Inventory of Chemicals (NZIoC)", "FisherTransport Information", "United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (English)", "OECD List of High Production Volume (HPV) Chemicals", "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)", "New Zealand Workplace Exposure Standards (WES)", "OECD Existing Chemicals Database", "Sigma-AldrichTransport Information", "United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (Spanish)", "International Air Transport Association (IATA) Dangerous Goods Regulations"
isophorone diamine(2855-13-2) is found on the following regulatory lists	"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)", "FisherTransport Information", "United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (English)", "OECD List of High Production Volume (HPV) Chemicals", "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)", "OECD Existing Chemicals Database", "Sigma-AldrichTransport Information", "United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (Spanish)", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals", "International Air Transport Association (IATA) Dangerous Goods Regulations", "IMO IBC Code Chapter 17: Summary of minimum requirements", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)"

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
9.1A, 9.2A, 9.3A, and 9.4A	Any quantity

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.

This document is copyright. Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH. TEL (+61 3) 9572 4700.