

RESENE CONCRETESEAL 3 IN 1

Resene Paints Ltd

Version No: 1.3
Safety Data Sheet according to HSNO Regulations

Chemwatch Hazard Alert Code: 3

Issue Date: 02/10/2015
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L.GHS.NZL.EN

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

Product Identifier

Product name	RESENE CONCRETESEAL 3 IN 1
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)
Other means of identification	Not Available

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

Relevant identified uses	8963
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Details of the supplier of the safety data sheet

Registered company name	Resene Paints Ltd
Address	32-50 Vogel Street Naenae 5011 Wellington New Zealand
Telephone	+64 4 577 0500
Fax	+64 4 577 3327
Website	www.resene.co.nz
Email	advice@resene.co.nz

Emergency telephone number

Association / Organisation	NZ POISONS (24hr 7 days)
Emergency telephone numbers	0800 764 766
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. Classified as Dangerous Goods for transport purposes.

GHS Classification ^[1]	Eye Irritation Category 2A, Skin Corrosion/Irritation Category 3, Acute Toxicity (Oral) Category 5, Acute Toxicity (Inhalation) Category 4, Germ Cell Mutagen Category 2, Carcinogen Category 2, Reproductive Toxicity Category 2, STOT - SE Category 2, Chronic Aquatic Hazard Category 3, Flammable Liquid 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	9.1C, 6.7B, 6.3B, 6.4A, 6.1E (oral), 6.9B, 6.1D (inhalation), 6.8B, 3.1C, 6.6B

Label elements

GHS label elements	
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SIGNAL WORD **WARNING**

Hazard statement(s)

H319	Causes serious eye irritation
H316	Causes mild skin irritation
H303	May be harmful if swallowed
H332	Harmful if inhaled
H341	Suspected of causing genetic defects
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H371	May cause damage to organs
H412	Harmful to aquatic life with long lasting effects
H226	Flammable liquid and vapour

Precautionary statement(s) Prevention

P201	Obtain special instructions before use.
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Precautionary statement(s) Response

P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.
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Precautionary statement(s) Storage

P403+P235	Store in a well-ventilated place. Keep cool.
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Precautionary statement(s) Disposal

P501	Dispose of contents/container in accordance with local regulations.
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SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
26354-11-0	2-5	<u>cresol/ phenol/ formaldehyde resin</u>
108-95-2	0.1-1	<u>phenol</u>
78-83-1	1-10	<u>isobutanol</u>
100-41-4	0.1-1	<u>ethylbenzene</u>
1330-20-7	1-10	<u>xylene</u>
67-63-0	1-10	<u>isopropanol</u>
95-63-6	1-10	<u>1,2,4-trimethyl benzene</u>
108-67-8	1-10	<u>1,3,5-trimethyl benzene</u>
98-82-8	1-10	<u>isopropyl benzene - cumene</u>
763-69-9	1-10	<u>ethyl-3-ethoxypropionate</u>

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

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	<p>If skin contact occurs:</p> <ul style="list-style-type: none"> ▶ 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. <p>For thermal burns:</p> <ul style="list-style-type: none"> ▶ Decontaminate area around burn. ▶ Consider the use of cold packs and topical antibiotics. <p>For first-degree burns (affecting top layer of skin)</p>

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	<ul style="list-style-type: none"> ▶ Hold burned skin under cool (not cold) running water or immerse in cool water until pain subsides. ▶ Use compresses if running water is not available. ▶ Cover with sterile non-adhesive bandage or clean cloth. ▶ Do NOT apply butter or ointments; this may cause infection. ▶ Give over-the counter pain relievers if pain increases or swelling, redness, fever occur. <p>For second-degree burns (affecting top two layers of skin)</p> <ul style="list-style-type: none"> ▶ Cool the burn by immerse in cold running water for 10-15 minutes. ▶ Use compresses if running water is not available. ▶ Do NOT apply ice as this may lower body temperature and cause further damage. ▶ Do NOT break blisters or apply butter or ointments; this may cause infection. ▶ Protect burn by cover loosely with sterile, nonstick bandage and secure in place with gauze or tape. <p>To prevent shock: (unless the person has a head, neck, or leg injury, or it would cause discomfort):</p> <ul style="list-style-type: none"> ▶ Lay the person flat. ▶ Elevate feet about 12 inches. ▶ Elevate burn area above heart level, if possible. ▶ Cover the person with coat or blanket. ▶ Seek medical assistance. <p>For third-degree burns Seek immediate medical or emergency assistance.</p> <p>In the mean time:</p> <ul style="list-style-type: none"> ▶ Protect burn area cover loosely with sterile, nonstick bandage or, for large areas, a sheet or other material that will not leave lint in wound. ▶ Separate burned toes and fingers with dry, sterile dressings. ▶ Do not soak burn in water or apply ointments or butter; this may cause infection. ▶ To prevent shock see above. ▶ For an airway burn, do not place pillow under the person's head when the person is lying down. This can close the airway. ▶ Have a person with a facial burn sit up. ▶ Check pulse and breathing to monitor for shock until emergency help arrives.
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"> ▶ If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus. ▶ 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.

Indication of any immediate medical attention and special treatment needed

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.

To treat poisoning by the higher aliphatic alcohols (up to C7):

- ▶ Gastric lavage with copious amounts of water.
- ▶ It may be beneficial to instill 60 ml of mineral oil into the stomach.
- ▶ Oxygen and artificial respiration as needed.
- ▶ Electrolyte balance: it may be useful to start 500 ml. M/6 sodium bicarbonate intravenously but maintain a cautious and conservative attitude toward electrolyte replacement unless shock or severe acidosis threatens.
- ▶ To protect the liver, maintain carbohydrate intake by intravenous infusions of glucose.
- ▶ Haemodialysis if coma is deep and persistent. [GOSSELIN, SMITH HODGE: Clinical Toxicology of Commercial Products, Ed 5]

BASIC TREATMENT

- ▶ 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 shock.
- ▶ Monitor and treat, where necessary, for pulmonary oedema.
- ▶ Anticipate and treat, where necessary, for 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.
- ▶ Give activated charcoal.

ADVANCED TREATMENT

- ▶ 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.
- ▶ If the patient is hypoglycaemic (decreased or loss of consciousness, tachycardia, pallor, dilated pupils, diaphoresis and/or dextrose strip or glucometer readings below 50 mg), give 50% dextrose.
- ▶ Hypotension with signs of hypovolaemia requires the cautious administration of fluids. Fluid overload might create complications.
- ▶ Drug therapy should be considered for pulmonary oedema.
- ▶ Treat seizures with diazepam.
- ▶ Proparacaine hydrochloride should be used to assist eye irrigation.

EMERGENCY DEPARTMENT

- ▶ Laboratory analysis of complete blood count, serum electrolytes, BUN, creatinine, glucose, urinalysis, baseline for serum aminotransferases (ALT and AST), calcium, phosphorus and

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- ▶ magnesium, may assist in establishing a treatment regime. Other useful analyses include anion and osmolar gaps, arterial blood gases (ABGs), chest radiographs and electrocardiograph.
- ▶ Positive end-expiratory pressure (PEEP)-assisted ventilation may be required for acute parenchymal injury or adult respiratory distress syndrome.
- ▶ Acidosis may respond to hyperventilation and bicarbonate therapy.
- ▶ Haemodialysis might be considered in patients with severe intoxication.
- ▶ Consult a toxicologist as necessary. BRONSTEIN, A.C. and CURRANCE, P.L. EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994

For C8 alcohols and above.

Symptomatic and supportive therapy is advised in managing patients.

For acute or short term repeated exposures to xylene:

- ▶ 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.

BIOLOGICAL EXPOSURE INDEX - BEI

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

- ▶ Alcohol stable 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

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|----------------------|---|
| Fire Fighting | ▶ Alert Fire Brigade and tell them location and nature of hazard. |
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| Fire/Explosion Hazard | ▶ Liquid and vapour are flammable. |
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SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

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| Minor Spills | ▶ Remove all ignition sources. |
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- | | |
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| Major Spills | Chemical Class: ester and ethers
For release onto land: recommended sorbents listed in order of priority. |
|---------------------|--|

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

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

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| Safe handling | ▶ Containers, even those that have been emptied, may contain explosive vapours. |
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| Other information | ▶ Store in original containers in approved flammable liquid storage area. |
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Conditions for safe storage, including any incompatibilities

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| Suitable container | ▶ Packing as supplied by manufacturer. |
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- | | |
|--------------------------------|---|
| Storage incompatibility | Xylenes:
▶ may ignite or explode in contact with strong oxidisers, 1,3-dichloro-5,5-dimethylhydantoin, uranium fluoride
▶ attack some plastics, rubber and coatings
▶ may generate electrostatic charges on flow or agitation due to low conductivity. |
|--------------------------------|---|

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)	phenol	Phenol	5 ppm	Not Available	Not Available	Skin absorption

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New Zealand Workplace Exposure Standards (WES)	isobutanol	Isobutyl alcohol	152 mg/m ³ / 50 ppm	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	ethylbenzene	Ethyl benzene	434 mg/m ³ / 100 ppm	543 mg/m ³ / 125 ppm	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	xylene	Xylene (o-, m-, p-isomers)	217 mg/m ³ / 50 ppm	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	isopropanol	Isopropyl alcohol	983 mg/m ³ / 400 ppm	1230 mg/m ³ / 500 ppm	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	isopropyl benzene - cumene	Cumene	125 mg/m ³ / 25 ppm	375 mg/m ³ / 75 ppm	Not Available	Skin absorption

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
phenol	Phenol	Not Available	Not Available	Not Available
isobutanol	Isobutyl alcohol	150 ppm	1300 ppm	8000 ppm
ethylbenzene	Ethyl benzene	Not Available	Not Available	Not Available
xylene	Xylenes	Not Available	Not Available	Not Available
isopropanol	Isopropyl alcohol	400 ppm	400 ppm	12000 ppm
1,2,4-trimethyl benzene	Trimethylbenzene, 1,2,4-; (Pseudocumene)	Not Available	Not Available	360 ppm
1,3,5-trimethyl benzene	Mesitylene; (1,3,5-Trimethylbenzene)	Not Available	Not Available	360 ppm
isopropyl benzene - cumene	Cumene; (Isopropyl benzene)	Not Available	Not Available	Not Available


Ingredient	Original IDLH	Revised IDLH
cresol/ phenol/ formaldehyde resin	Not Available	Not Available
phenol	250 ppm	250 [Unch] ppm
isobutanol	8,000 ppm	1,600 ppm
ethylbenzene	2,000 ppm	800 [LEL] ppm
xylene	1,000 ppm	900 ppm
isopropanol	12,000 ppm	2,000 [LEL] ppm
1,2,4-trimethyl benzene	Not Available	Not Available
1,3,5-trimethyl benzene	Not Available	Not Available
isopropyl benzene - cumene	8,000 ppm	900 [LEL] ppm
ethyl-3-ethoxypropionate	Not Available	Not Available

MATERIAL DATA

For talc (a form of magnesium silicate):

Most health problems associated with occupational exposure to talcs appear to evolve mostly from the nonplatform content of the talc being mined or milled (being the asbestos-like amphiboles, serpentines (asbestiformes) and other minerals in the form of acicular, prismatic and fibrous crystals including, possibly, asbestos).

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 chemical protective gloves, e.g. PVC.
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	C
BUTYL/NEOPRENE	C

Respiratory protection

Type BEKAX-P Filter of sufficient capacity.

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	BEKAX-AUS / Class 1 P2	-	BEKAX-PAPR-AUS / Class 1 P2

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CPE	C
HYPALON	C
NAT+NEOPR+NITRILE	C
NATURAL RUBBER	C
NATURAL+NEOPRENE	C
NEOPRENE	C
NEOPRENE/NATURAL	C
NITRILE	C
NITRILE+PVC	C
PE	C
PE/EVAL/PE	C
PVA	C
PVC	C
PVDC/PE/PVDC	C
SARANEX-23	C
SARANEX-23 2-PLY	C
TEFLON	C
VITON	C
VITON/CHLOROBUTYL	C
VITON/NEOPRENE	C

up to 25 x ES	Air-line*	BEKAX-2 P2	BEKAX-PAPR-2 P2
up to 50 x ES	-	BEKAX-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)

* 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.

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 liquid with solvent odour		
Physical state	Liquid	Relative density (Water = 1)	1.115
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	409
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)	82	Molecular weight (g/mol)	Not Available
Flash point (°C)	44	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Flammable.	Oxidising properties	Not Available
Upper Explosive Limit (%)	8.0	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	1.1	Volatile Component (%vol)	82
Vapour pressure (kPa)	1.1	Gas group	Not Available
Solubility in water (g/L)	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	4.2	VOC g/L	744

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

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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 be harmful.
Ingestion	The material is not thought to produce adverse health effects following ingestion (as classified by EC Directives using animal models).
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	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	On the basis of epidemiological data, it has been concluded that prolonged inhalation of the material, in an occupational setting, may produce cancer in humans.

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	Not Available	Not Available
cresol/ phenol/ formaldehyde resin	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >5000 mg/kg ^[2] Oral (rat) LD50: >5000 mg/kgd ^[2]	[Manufacturer] Nil reported
phenol	TOXICITY	IRRITATION
	dermal (rat) LD50: 662.5 mg/kg ^[1]	Eye(rabbit): 100 mg rinse - mild
	Inhalation (rat) LC50: 0.316 mg/L/4H ^[2]	Eye(rabbit): 5 mg - SEVERE
	Oral (rat) LD50: 317 mg/kgE ^[2]	Skin(rabbit): 500 mg open -SEVERE Skin(rabbit): 500 mg/24hr - SEVERE
isobutanol	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >2000 mg/kg ^[1]	Eye (rabbit): 2 20 mg/24h-moderate
	Inhalation (rat) LC50: 19.2 mg/L/4H ^[2]	Eye (rabbit): 2 mg/24h - SEVERE
ethylbenzene	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: ca.15432.6 mg/kg ^[1]	Eye (rabbit): 500 mg - SEVERE
	Inhalation (mouse) LC50: 35.5 mg/L/2H ^[2]	Skin (rabbit): 15 mg/24h mild
	Inhalation (rat) LC50: 55 mg/L/2H ^[2] Oral (rat) LD50: 3500 mg/kgd ^[2]	
xylene	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >1700 mg/kg ^[2]	Eye (human): 200 ppm irritant
	Inhalation (rat) LC50: 5000 ppm/4h ^[2]	Eye (rabbit): 5 mg/24h SEVERE
	Oral (rat) LD50: 4300 mg/kgt ^[2]	Eye (rabbit): 87 mg mild Skin (rabbit):500 mg/24h moderate
isopropanol	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 12792 mg/kg ^[1]	Eye (rabbit): 10 mg - moderate
	Inhalation (rat) LC50: 72.6 mg/L/4h ^[2]	Eye (rabbit): 100 mg - SEVERE
	Oral (rat) LD50: 5000 mg/kg ^[2]	Eye (rabbit): 100mg/24hr-moderate Skin (rabbit): 500 mg - mild
1,2,4-trimethyl benzene	TOXICITY	IRRITATION
	dermal (rat) LD50: 3504 mg/kg ^[1] Inhalation (rat) LC50: 18 mg/L/4hd ^[2]	Not Available

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	Oral (rat) LD50: ca.3504 mg/kg ^[1]	
1,3,5-trimethyl benzene	TOXICITY	IRRITATION
	dermal (rat) LD50: >3460 mg/kg ^[1]	Eye (rabbit): 500 mg/24h mild
	Inhalation (rat) LC50: 24 mg/L/4h ^[2]	Skin (rabbit): 20 mg/24h moderate
	Oral (rat) LD50: ca.3460 mg/kg ^[1]	
isopropyl benzene - cumene	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 10602.6 mg/kg ^[1]	Eye (rabbit): 500 mg/24h mild
	Inhalation (rat) LC50: 39 mg/L/4h ^[2]	Eye (rabbit): 86 mg mild
	Oral (rat) LD50: 1400 mg/kg ^[2]	Skin (rabbit): 10 mg/24h mild Skin (rabbit):100 mg/24h moderate
ethyl-3-ethoxypropionate	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 4075.5 mg/kg ^[1]	Eye (rabbit): 500mg/24h - mild
	Inhalation (rat) LC50: 1250 ppm/4h ^[2]	Skin (rabbit):10 mg/24h open mild
	Oral (rat) LD50: 5139.5 mg/kg ^[1]	
Legend:	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances	

CRESOL/ PHENOL/ FORMALDEHYDE RESIN	for phenol/ formaldehyde analogue
ETHYLBENZENE	Liver changes, uterual tract, effects on fertility, foetotoxicity, specific developmental abnormalities (musculoskeletal system) recorded.
XYLENE	Reproductive effector in rats
ISOPROPANOL	For isopropanol (IPA): Acute toxicity: Isopropanol has a low order of acute toxicity.
1,2,4-TRIMETHYL BENZENE	CHEMWATCH 2325 1,3,5-trimethylbenzene
1,3,5-TRIMETHYL BENZENE	CHEMWATCH 12171 1,2,4-trimethylbenzene
ISOPROPYL BENZENE - CUMENE	Cumene is reasonably anticipated to be a human carcinogen based on sufficient evidence of carcinogenicity from studies in experimental animals. similar metabolic pathways. The relevance of the kidney tumors to cancer in humans is uncertain; there is evidence that a species-specific mechanism not relevant to humans contributes to their induction, but it is possible that other mechanisms relevant to humans, such as genotoxicity, may also contribute to kidney-tumour formation in male rats.
ETHYL-3-ETHOXYPROPIONATE	The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). * Union Carbide ** Endura Manufacturing
RESENE CONCRETESEAL 3 IN 1 & CRESOL/ PHENOL/ FORMALDEHYDE RESIN	The following information refers to contact allergens as a group and may not be specific to this product.
PHENOL & ETHYLBENZENE & XYLENE	The material may produce severe irritation to the eye causing pronounced inflammation.
ISOBUTANOL & 1,2,4-TRIMETHYL BENZENE & 1,3,5-TRIMETHYL BENZENE & ISOPROPYL BENZENE - CUMENE	Asthma-like symptoms may continue for months or even years after exposure to the material ceases.
1,2,4-TRIMETHYL BENZENE & 1,3,5-TRIMETHYL BENZENE	Other Toxicity data is available for
1,2,4-TRIMETHYL BENZENE & 1,3,5-TRIMETHYL BENZENE	CHEMWATCH 12172 1,2,3-trimethylbenzene

Acute Toxicity	✓	Carcinogenicity	✓
Skin Irritation/Corrosion	✓	Reproductivity	✓
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	✓

RESENE CONCRETESEAL 3 IN 1

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

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

NOT AVAILABLE

Ingredient	Endpoint	Test Duration	Effect	Value	Species	BCF
cresol/ phenol/ formaldehyde resin	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
phenol	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
isobutanol	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
ethylbenzene	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
xylene	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
isopropanol	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
1,2,4-trimethyl benzene	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
1,3,5-trimethyl benzene	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
isopropyl benzene - cumene	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
ethyl-3-ethoxypropionate	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
phenol	LOW (Half-life = 10 days)	LOW (Half-life = 0.95 days)
isobutanol	LOW (Half-life = 14.42 days)	LOW (Half-life = 4.15 days)
ethylbenzene	HIGH (Half-life = 228 days)	LOW (Half-life = 3.57 days)
xylene	HIGH (Half-life = 360 days)	LOW (Half-life = 1.83 days)
isopropanol	LOW (Half-life = 14 days)	LOW (Half-life = 3 days)
1,2,4-trimethyl benzene	LOW (Half-life = 56 days)	LOW (Half-life = 0.67 days)
1,3,5-trimethyl benzene	HIGH	HIGH
isopropyl benzene - cumene	HIGH	HIGH
ethyl-3-ethoxypropionate	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
phenol	LOW (BCF = 17.5)
isobutanol	LOW (LogKOW = 0.76)
ethylbenzene	LOW (BCF = 79.43)
xylene	MEDIUM (BCF = 740)
isopropanol	LOW (LogKOW = 0.05)
1,2,4-trimethyl benzene	LOW (BCF = 275)
1,3,5-trimethyl benzene	LOW (BCF = 342)
isopropyl benzene - cumene	LOW (BCF = 35.5)
ethyl-3-ethoxypropionate	LOW (LogKOW = 1.0809)

Mobility in soil

Ingredient	Mobility
phenol	LOW (KOC = 268)
isobutanol	MEDIUM (KOC = 2.048)
ethylbenzene	LOW (KOC = 517.8)
isopropanol	HIGH (KOC = 1.06)
1,2,4-trimethyl benzene	LOW (KOC = 717.6)
1,3,5-trimethyl benzene	LOW (KOC = 703)
isopropyl benzene - cumene	LOW (KOC = 817.2)
ethyl-3-ethoxypropionate	LOW (KOC = 10)

RESENE CONCRETESEAL 3 IN 1

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal	<ul style="list-style-type: none"> Containers may still present a chemical hazard/ danger when empty.
	Ensure 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	•3Y

Land transport (UN)

UN number	1263				
Packing group	III				
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)	<table border="1"> <tr> <td>Class</td> <td>3</td> </tr> <tr> <td>Subrisk</td> <td>Not Applicable</td> </tr> </table>	Class	3	Subrisk	Not Applicable
Class	3				
Subrisk	Not Applicable				
Special precautions for user	<table border="1"> <tr> <td>Special provisions</td> <td>163;223;367</td> </tr> <tr> <td>Limited quantity</td> <td>5 L</td> </tr> </table>	Special provisions	163;223;367	Limited quantity	5 L
Special provisions	163;223;367				
Limited quantity	5 L				

Air transport (ICAO-IATA / DGR)

UN number	1263														
Packing group	III														
UN proper shipping name	Paint (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base); Paint related material (including paint thinning or reducing compounds)														
Environmental hazard	No relevant data														
Transport hazard class(es)	<table border="1"> <tr> <td>ICAO/IATA Class</td> <td>3</td> </tr> <tr> <td>ICAO / IATA Subrisk</td> <td>Not Applicable</td> </tr> <tr> <td>ERG Code</td> <td>3L</td> </tr> </table>	ICAO/IATA Class	3	ICAO / IATA Subrisk	Not Applicable	ERG Code	3L								
ICAO/IATA Class	3														
ICAO / IATA Subrisk	Not Applicable														
ERG Code	3L														
Special precautions for user	<table border="1"> <tr> <td>Special provisions</td> <td>A3 A72 A192</td> </tr> <tr> <td>Cargo Only Packing Instructions</td> <td>366</td> </tr> <tr> <td>Cargo Only Maximum Qty / Pack</td> <td>220 L</td> </tr> <tr> <td>Passenger and Cargo Packing Instructions</td> <td>355</td> </tr> <tr> <td>Passenger and Cargo Maximum Qty / Pack</td> <td>60 L</td> </tr> <tr> <td>Passenger and Cargo Limited Quantity Packing Instructions</td> <td>Y344</td> </tr> <tr> <td>Passenger and Cargo Limited Maximum Qty / Pack</td> <td>10 L</td> </tr> </table>	Special provisions	A3 A72 A192	Cargo Only Packing Instructions	366	Cargo Only Maximum Qty / Pack	220 L	Passenger and Cargo Packing Instructions	355	Passenger and Cargo Maximum Qty / Pack	60 L	Passenger and Cargo Limited Quantity Packing Instructions	Y344	Passenger and Cargo Limited Maximum Qty / Pack	10 L
Special provisions	A3 A72 A192														
Cargo Only Packing Instructions	366														
Cargo Only Maximum Qty / Pack	220 L														
Passenger and Cargo Packing Instructions	355														
Passenger and Cargo Maximum Qty / Pack	60 L														
Passenger and Cargo Limited Quantity Packing Instructions	Y344														
Passenger and Cargo Limited Maximum Qty / Pack	10 L														

Sea transport (IMDG-Code / GGVSee)

UN number	1263		
Packing group	III		
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	Not Applicable		
Transport hazard class(es)	<table border="1"> <tr> <td>IMDG Class</td> <td>3</td> </tr> </table>	IMDG Class	3
IMDG Class	3		

RESENE CONCRETESEAL 3 IN 1

	IMDG Subrisk	Not Applicable
Special precautions for user	EMS Number	F-E , S-E
	Special provisions	163 223 955
	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	phenol	Y
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	isobutanol	Z
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	ethylbenzene	Y
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	xylene	Y
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	1,2,4-trimethyl benzene	Y; X
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	1,3,5-trimethyl benzene	Y; X
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	isopropyl benzene - cumene	Y
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	ethyl-3-ethoxypropionate	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
HSR002669	Surface Coatings and Colourants (Flammable, Toxic [6.7]) Group Standard 2006

CRESOL/ PHENOL/ FORMALDEHYDE RESIN(26354-11-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS

New Zealand Inventory of Chemicals (NZIoC)

PHENOL(108-95-2) IS FOUND ON THE FOLLOWING REGULATORY LISTS

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Inventory of Chemicals (NZIoC)
New Zealand Workplace Exposure Standards (WES)

ISOBUTANOL(78-83-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals
New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

ETHYLBENZENE(100-41-4) IS FOUND ON THE FOLLOWING REGULATORY LISTS

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Inventory of Chemicals (NZIoC)
New Zealand Workplace Exposure Standards (WES)

XYLENE(1330-20-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Inventory of Chemicals (NZIoC)
New Zealand Workplace Exposure Standards (WES)

ISOPROPANOL(67-63-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Inventory of Chemicals (NZIoC)
New Zealand Workplace Exposure Standards (WES)

1,2,4-TRIMETHYL BENZENE(95-63-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS

RESENE CONCRETESEAL 3 IN 1

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Inventory of Chemicals (NZIoC)

1,3,5-TRIMETHYL BENZENE(108-67-8) IS FOUND ON THE FOLLOWING REGULATORY LISTS

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Inventory of Chemicals (NZIoC)

ISOPROPYL BENZENE - CUMENE(98-82-8) IS FOUND ON THE FOLLOWING REGULATORY LISTS

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Workplace Exposure Standards (WES)

ETHYL-3-ETHOXYPROPIONATE(763-69-9) IS FOUND ON THE FOLLOWING REGULATORY LISTS

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Inventory of Chemicals (NZIoC)

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
3.1C	500 L in containers greater than 5 L 1500 L in containers up to and including 5 L	250 L 250 L

Approved Handler

Subject to Regulation 56 of the Hazardous Substances (Classes 1 to 5 Controls) Regulations and Regulation 9 of the Hazardous Substances (Classes 6, 8, and 9 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

Refer Group Standards for further information

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (phenol; xylene; ethylbenzene; 1,3,5-trimethyl benzene; ethyl-3-ethoxypropionate; isopropyl benzene - cumene; 1,2,4-trimethyl benzene; isopropanol; isobutanol; cresol/ phenol/ formaldehyde resin)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	N (cresol/ phenol/ formaldehyde resin)
Japan - ENCS	Y
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION**Other information****Ingredients with multiple cas numbers**

Name	CAS No
cresol/ phenol/ formaldehyde resin	26354-11-0, 9039-25-2

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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