

RALI 81B 2K ETCH PRIMER CATALYST

RESENE AUTOMOTIVE & LIGHT INDUSTRIAL

Chemwatch Hazard Alert Code: 3

Version No: 1.3
Safety Data Sheet according to HSNO Regulations

Issue Date: 03/09/2015
Print Date: 03/09/2015
Initial Date: 03/09/2015
L.GHS.NZL.EN

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

Product Identifier

Product name	RALI 81B 2K ETCH PRIMER CATALYST
Synonyms	Not Available
Proper shipping name	PAINT, FLAMMABLE, CORROSIVE (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE (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	6164
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Details of the supplier of the safety data sheet

Registered company name	RESENE AUTOMOTIVE & LIGHT INDUSTRIAL
Address	32-50 Vogel Street Naenae 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	NZ POISONS (24hr 7 days)
Emergency telephone numbers	0800 764766
Other emergency telephone numbers	0800 737636

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]	Serious Eye Damage Category 1, Acute Toxicity (Oral) Category 4, Flammable Liquid Category 2, Skin Corrosion/Irritation Category 1C, Metal Corrosion 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	3.1B, 8.2C, 6.1D (oral), 8.3A, 8.1A

Label elements

GHS label elements	
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RALI 81B 2K ETCH PRIMER CATALYST

SIGNAL WORD **DANGER**

Hazard statement(s)

H318	Causes serious eye damage
H302	Harmful if swallowed
H225	Highly flammable liquid and vapour
H314	Causes severe skin burns and eye damage
H290	May be corrosive to metals

Precautionary statement(s) Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P234	Keep only in original container.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/intrinsically safe equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P270	Do not eat, drink or smoke when using this product.

Precautionary statement(s) Response

P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor/physician/first aider
P370+P378	In case of fire: Use alcohol resistant foam or normal protein foam for extinction.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.
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.
P405	Store locked up.

Precautionary statement(s) Disposal

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

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
7664-38-2	5-10	<u>phosphoric acid</u>
71-36-3	5-10	<u>n-butanol</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"> ▶ Immediately hold eyelids apart and flush the eye continuously with running water. ▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ▶ Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. ▶ Transport to hospital or doctor without delay.
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	<ul style="list-style-type: none"> ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	<p>If skin or hair contact occurs:</p> <ul style="list-style-type: none"> ▶ Immediately flush body and clothes with large amounts of water, using safety shower if available. ▶ Quickly remove all contaminated clothing, including footwear. ▶ Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. ▶ Transport to hospital, or doctor.
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. ▶ Inhalation of vapours or aerosols (mists, fumes) may cause lung oedema. ▶ Corrosive substances may cause lung damage (e.g. lung oedema, fluid in the lungs). ▶ As this reaction may be delayed up to 24 hours after exposure, affected individuals need complete rest (preferably in semi-recumbent posture) and must be kept under medical observation even if no symptoms are (yet) manifested. ▶ Before any such manifestation, the administration of a spray containing a dexamethasone derivative or beclomethasone derivative may be considered. <p>This must definitely be left to a doctor or person authorised by him/her. (ICSC13719)</p>
Ingestion	<ul style="list-style-type: none"> ▶ For advice, contact a Poisons Information Centre or a doctor at once. ▶ Urgent hospital treatment is likely to be needed. ▶ If swallowed do NOT induce vomiting. ▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ▶ Observe the patient carefully. ▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ▶ Transport to hospital or doctor without delay. ▶ 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

As in all cases of suspected poisoning, follow the ABCDEs of emergency medicine (airway, breathing, circulation, disability, exposure), then the ABCDEs of toxicology (antidotes, basics, change absorption, change distribution, change elimination).

For poisons (where specific treatment regime is absent):

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 pulmonary oedema.
- ▶ Monitor and treat, where necessary, for shock.
- ▶ Anticipate seizures.
- ▶ **DO NOT** use emetics. Where ingestion is suspected rinse mouth and give up to 200 ml water (5 ml/kg recommended) for dilution where patient is able to swallow, has a strong gag reflex and does not drool.

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.
- ▶ Drug therapy should be considered for pulmonary oedema.
- ▶ Hypotension with signs of hypovolaemia requires the cautious administration of fluids. Fluid overload might create complications.
- ▶ Treat seizures with diazepam.
- ▶ Proparacaine hydrochloride should be used to assist eye irrigation.

BRONSTEIN, A.C. and CURRANCE, P.L.

EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994

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.

For acute or short term repeated exposures to isopropanol:

- ▶ Rapid onset respiratory depression and hypotension indicates serious ingestions that require careful cardiac and respiratory monitoring together with immediate intravenous access.
- ▶ Rapid absorption precludes the usefulness of emesis or lavage 2 hours post-ingestion. Activated charcoal and cathartics are not clinically useful. Ipecac is most useful when given 30 mins. post-ingestion.
- ▶ There are no antidotes.
- ▶ Management is supportive. Treat hypotension with fluids followed by vasopressors.
- ▶ Watch closely, within the first few hours for respiratory depression; follow arterial blood gases and tidal volumes.
- ▶ Ice water lavage and serial haemoglobin levels are indicated for those patients with evidence of gastrointestinal bleeding.

Depending on the degree of exposure, periodic medical examination is indicated. The symptoms of lung oedema often do not manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation is therefore essential. Immediate administration of an appropriate spray, by a doctor or a person authorised by him/her should be considered.
(ICSC24419/24421)

SECTION 5 FIREFIGHTING MEASURES**Extinguishing media**

- ▶ Alcohol stable foam.

Continued...

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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
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Advice for firefighters

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

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Minor Spills	▶ Remove all ignition sources.
Major Spills	Chemical Class: alcohols and glycols 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

Safe handling	▶ DO NOT allow clothing wet with material to stay in contact with skin The substance accumulates peroxides which may become hazardous only if it evaporates or is distilled or otherwise treated to concentrate the peroxides.
Other information	▶ Store in original containers.

Conditions for safe storage, including any incompatibilities

Suitable container	▶ DO NOT use aluminium or galvanised containers ▶ Lined metal can, lined metal pail/ can.
Storage incompatibility	<p>Phosphoric acid:</p> <ul style="list-style-type: none"> ▶ is a medium-strong acid which produces violent reaction with bases ▶ may produce violent react when water is added to the concentrated form ▶ reacts violently with solutions containing ammonia or bleach, azo compounds, epoxides and other polymerisable compounds ▶ reacts, possibly violently with amines, aldehydes, alkanolamines, alcohols, alkylene oxides, amides, ammonia, ammonia hydroxide, calcium oxide, cyanides, epichlorohydrin, esters, halogenated organics, isocyanates, ketones, oleum, organic anhydrides, sodium tetraborate, sulfides, sulfuric acid, strong oxidisers, vinyl acetate ▶ forms explosive mixtures with nitromethane ▶ at elevated temperatures attacks many metals producing hydrogen gas ▶ at room temperature does not attack stainless steel, copper or its alloys ▶ attacks glass, ceramics, and some plastics, rubber and coatings <p>Isopropanol (syn: isopropyl alcohol, IPA):</p> <ul style="list-style-type: none"> ▶ forms ketones and unstable peroxides on contact with air or oxygen; the presence of ketones especially methyl ethyl ketone (MEK, 2-butanone) will accelerate the rate of peroxidation ▶ reacts violently with strong oxidisers, powdered aluminium (exothermic), crotonaldehyde, diethyl aluminium bromide (ignition), dioxygenyl tetrafluoroborate (ignition/ ambient temperature), chromium trioxide (ignition), potassium-tert-butoxide (ignition), nitroform (possible explosion), oleum (pressure increased in closed container), cobalt chloride, aluminium triisopropoxide, hydrogen plus palladium dust (ignition), oxygen gas, phosgene, phosgene plus iron salts (possible explosion), sodium dichromate plus sulfuric acid (exothermic/ incandescence), triisobutyl aluminium ▶ reacts with phosphorus trichloride forming hydrogen chloride gas ▶ reacts, possibly violently, with alkaline earth and alkali metals, strong acids, strong caustics, acid anhydrides, halogens, aliphatic amines, aluminium isopropoxide, isocyanates, acetaldehyde, barium perchlorate (forms highly explosive perchloric ester compound), benzoyl peroxide, chromic acid, dialkylzincs, dichlorine oxide, ethylene oxide (possible explosion), hexamethylene diisocyanate (possible explosion), hydrogen peroxide (forms explosive compound), hypochlorous acid, isopropyl chlorocarbonate, lithium aluminium hydride, lithium tetrahydroaluminate, nitric acid, nitrogen dioxide, nitrogen tetraoxide (possible explosion), pentafluoroguanidine, perchloric acid (especially hot), permonosulfuric acid, phosphorus pentasulfide, tangerine oil, triethylaluminium, triisobutylaluminium, trinitromethane ▶ attacks some plastics, rubber and coatings ▶ reacts with metallic aluminium at high temperature ▶ may generate electrostatic charges <p>Methyl isobutyl ketone (MIBK)</p> <ul style="list-style-type: none"> ▶ forms unstable and explosive peroxides on contact with air and/ or when in contact with hydrogen peroxide ▶ reacts violently with strong oxidisers, aldehydes, aliphatic amines, nitric acid, perchloric acid, potassium tert-butoxide, strong acids, reducing agents ▶ dissolves some plastics, resins and rubber ▶ Reacts with mild steel, galvanised steel / zinc producing hydrogen gas which may form an explosive mixture with air.

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)	phosphoric acid	Phosphoric acid	1 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	n-butanol	n-Butyl alcohol	Not Available	Not Available	150 mg/m3 / 50 ppm	Skin absorption

EMERGENCY LIMITS

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Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
phosphoric acid	Phosphoric acid	Not Available	Not Available	Not Available
n-butanol	Butyl alcohol, n-; (n-Butanol)	20 ppm	50 ppm	8000 ppm


Ingredient	Original IDLH	Revised IDLH
phosphoric acid	10,000 mg/m3	1,000 mg/m3
n-butanol	8,000 ppm	1,400 [LEL] ppm

MATERIAL DATA

Odour Threshold Value: 3.6 ppm (detection), 699 ppm (recognition)

NOTE: Detector tubes measuring in excess of 40 ppm, are 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	▶ Chemical goggles.
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
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/NEOPRENE	C

* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

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

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

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

Respiratory protection

Type BAX-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 10 x ES	BAX-AUS / Class 1 P2	-	BAX-PAPR-AUS / Class 1 P2
up to 50 x ES	Air-line*	-	-
up to 100 x ES	-	BAX-3 P2	-
100+ x ES	-	Air-line**	-

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

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)

RALI 81B 2K ETCH PRIMER CATALYST

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Colourless to yellowish clear liquid with strong solvent odour		
Physical state	Liquid	Relative density (Water = 1)	0.833
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	447
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)	75	Molecular weight (g/mol)	Not Available
Flash point (°C)	11	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	HIGHLY FLAMMABLE.	Oxidising properties	Not Available
Upper Explosive Limit (%)	12.0	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	2.1	Volatile Component (%vol)	97
Vapour pressure (kPa)	5.12	Gas group	Not Available
Solubility in water (g/L)	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	2.3	VOC g/L	718

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	Inhalation of vapours may cause drowsiness and dizziness.
Ingestion	Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.
Skin Contact	The material can produce chemical burns following direct contact with the skin.
Eye	The material can produce chemical burns to the eye following direct contact.
Chronic	Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.

RALI 81B 2K ETCH PRIMER CATALYST	TOXICITY	IRRITATION
	Not Available	Not Available
phosphoric acid	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >1260 mg/kg ^[2]	[Monsanto]*
	Inhalation (rat) LC50: 0.0255 mg/L/4h ^[2]	Eye (rabbit): 119 mg - SEVERE
	Oral (rat) LD50: 1.7 ml/100 g body weight ^[1]	Skin (rabbit):595 mg/24h - SEVERE
n-butanol	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 3434.4 mg/kg ^[1]	Eye (human): 50 ppm - irritant
	Inhalation (rat) LC50: 24 mg/L/4h ^[2]	Eye (rabbit): 1.6 mg-SEVERE
	Inhalation (rat) LC50: 8000 ppm/4h ^[2]	Eye (rabbit): 24 mg/24h-SEVERE
	Oral (rat) LD50: 2292.3 mg/kg ^[1]	Skin (rabbit): 405 mg/24h-moderate

RALI 81B 2K ETCH PRIMER CATALYST

extracted from RTECS - Register of Toxic Effect of chemical Substances

PHOSPHORIC ACID	phosphoric acid (85%)
N-BUTANOL	Asthma-like symptoms may continue for months or even years after exposure to the material ceases.
RALI 81B 2K ETCH PRIMER CATALYST & PHOSPHORIC ACID	No significant acute toxicological data identified in literature search.

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

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

NOT AVAILABLE

Ingredient	Endpoint	Test Duration	Effect	Value	Species	BCF
phosphoric acid	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
n-butanol	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

for n-butanol (syn: BA)

log Kow : 0.88

Koc : 71.6

Half-life (hr) air : 5-52

Half-life (hr) H2O surface water : 2.4-3022

Henry's atm m3 /mol: 5.57E-06

BOD 5: 1.1-2.04,33%

COD : 1.9,92%

ThOD : 2.594

Environmental fate:

BA's vapor pressure is 0.56 kPa at 200 C, water solubility is 77 g/L at 200 C and a Log Kow is 0.88.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
phosphoric acid	HIGH	HIGH
n-butanol	LOW (Half-life = 54 days)	LOW (Half-life = 3.65 days)

Bioaccumulative potential

Ingredient	Bioaccumulation
phosphoric acid	LOW (LogKOW = -0.7699)
n-butanol	LOW (BCF = 64)

Mobility in soil

Ingredient	Mobility
phosphoric acid	HIGH (KOC = 1)
n-butanol	MEDIUM (KOC = 2.443)

SECTION 13 DISPOSAL CONSIDERATIONS



Waste treatment methods

Product / Packaging disposal	▶ 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

RALI 81B 2K ETCH PRIMER CATALYST

Labels Required

	 
Marine Pollutant	NO
HAZCHEM	•3WE

Land transport (UN)

UN number	3469				
Packing group	II				
UN proper shipping name	PAINT, FLAMMABLE, CORROSIVE (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE (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>8</td> </tr> </table>	Class	3	Subrisk	8
Class	3				
Subrisk	8				
Special precautions for user	<table border="1"> <tr> <td>Special provisions</td> <td>163;367</td> </tr> <tr> <td>Limited quantity</td> <td>1 L</td> </tr> </table>	Special provisions	163;367	Limited quantity	1 L
Special provisions	163;367				
Limited quantity	1 L				

Air transport (ICAO-IATA / DGR)

UN number	3469														
Packing group	II														
UN proper shipping name	Paint, flammable, corrosive (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base); Paint related material, flammable, corrosive (including paint thinning or reducing compound)														
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>8</td> </tr> <tr> <td>ERG Code</td> <td>3CH</td> </tr> </table>	ICAO/IATA Class	3	ICAO / IATA Subrisk	8	ERG Code	3CH								
ICAO/IATA Class	3														
ICAO / IATA Subrisk	8														
ERG Code	3CH														
Special precautions for user	<table border="1"> <tr> <td>Special provisions</td> <td>A3 A72 A192 A803</td> </tr> <tr> <td>Cargo Only Packing Instructions</td> <td>363</td> </tr> <tr> <td>Cargo Only Maximum Qty / Pack</td> <td>5 L</td> </tr> <tr> <td>Passenger and Cargo Packing Instructions</td> <td>352</td> </tr> <tr> <td>Passenger and Cargo Maximum Qty / Pack</td> <td>1 L</td> </tr> <tr> <td>Passenger and Cargo Limited Quantity Packing Instructions</td> <td>Y340</td> </tr> <tr> <td>Passenger and Cargo Limited Maximum Qty / Pack</td> <td>0.5 L</td> </tr> </table>	Special provisions	A3 A72 A192 A803	Cargo Only Packing Instructions	363	Cargo Only Maximum Qty / Pack	5 L	Passenger and Cargo Packing Instructions	352	Passenger and Cargo Maximum Qty / Pack	1 L	Passenger and Cargo Limited Quantity Packing Instructions	Y340	Passenger and Cargo Limited Maximum Qty / Pack	0.5 L
Special provisions	A3 A72 A192 A803														
Cargo Only Packing Instructions	363														
Cargo Only Maximum Qty / Pack	5 L														
Passenger and Cargo Packing Instructions	352														
Passenger and Cargo Maximum Qty / Pack	1 L														
Passenger and Cargo Limited Quantity Packing Instructions	Y340														
Passenger and Cargo Limited Maximum Qty / Pack	0.5 L														

Sea transport (IMDG-Code / GGVSee)

UN number	3469						
Packing group	II						
UN proper shipping name	PAINT, FLAMMABLE, CORROSIVE (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE (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> <tr> <td>IMDG Subrisk</td> <td>8</td> </tr> </table>	IMDG Class	3	IMDG Subrisk	8		
IMDG Class	3						
IMDG Subrisk	8						
Special precautions for user	<table border="1"> <tr> <td>EMS Number</td> <td>F-E , S-C</td> </tr> <tr> <td>Special provisions</td> <td>163</td> </tr> <tr> <td>Limited Quantities</td> <td>1 L</td> </tr> </table>	EMS Number	F-E , S-C	Special provisions	163	Limited Quantities	1 L
EMS Number	F-E , S-C						
Special provisions	163						
Limited Quantities	1 L						

Transport in bulk according to Annex II of MARPOL 73 / 78 and the IBC code

Source	Ingredient	Pollution Category
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RALI 81B 2K ETCH PRIMER CATALYST

IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	phosphoric acid	Z
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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
HSR002663	Surface Coatings and Colourants (Flammable, Corrosive) Group Standard 2006

PHOSPHORIC ACID(7664-38-2) IS FOUND ON THE FOLLOWING REGULATORY LISTS

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

New Zealand Workplace Exposure Standards (WES)

New Zealand Inventory of Chemicals (NZIoC)

N-BUTANOL(71-36-3) IS FOUND ON THE FOLLOWING REGULATORY LISTS

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

New Zealand Workplace Exposure Standards (WES)

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
3.1B	100 L in containers greater than 5 L 250 L in containers up to and including 5 L	50 L 50 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
3.1B	250 L (when in containers greater than 5 L) 500 L (when in containers up to and including 5 L)

Refer Group Standards for further information

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (n-butanol; phosphoric acid)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
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
phosphoric acid	16271-20-8, 7664-38-2

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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