RESENE AUTOMOTIVE & LIGHT INDUSTRIAL

Version No: 1.4 Safety Data Sheet according to HSNO Regulations Issue Date: 02/09/2016 Print Date: 02/09/2016 L.GHS.NZL.EN

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

Product Identifier

Product name	RALI TRUCK KLEEN
Synonyms	Not Available
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Other means of identification	Not Available

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

Relevant identified uses 8121

Details of the supplier of the safety data sheet

Registered company name	RESENE AUTOMOTIVE & LIGHT INDUSTRIAL
Address	32-50 Vogel Street Wellington Naenae 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	+800 2436 2255	+612 9186 1132

Once connected and if the message is not in your prefered 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.

Classification ¹¹	Category 2
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	9.1B, 6.4A, 6.1D (oral), 6.3A, 9.1D

Label elements

GHS label elements	
SIGNAL WORD	WARNING

Hazard statement(s)

H302	Harmful if swallowed.
H315	Causes skin irritation.

H319	Causes serious eye irritation.	
H411	Toxic to aquatic life with long lasting effects.	
Precautionary statement(s)	Prevention	
P270	Do not eat, drink or smoke when using this product.	
Precautionary statement(s) Response		
P362	Take off contaminated clothing and wash before reuse.	
Precautionary statement(s) Storage Not Applicable		
Precautionary statement(s) Disposal		
P501	Dispose of contents/container in accordance with local regulations.	

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

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

Mixtures

CAS No	%[weight]	Name
111-76-2	1-10	ethylene glycol monobutyl ether
7320-34-5	1-10	potassium pyrophosphate

SECTION 4 FIRST AID MEASURES

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

Description of first aid measures

Eye Contact	 If this product comes in contact with the eyes: Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Inhalation	 If fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary.
Ingestion	 IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY. For advice, contact a Poisons Information Centre or a doctor. Urgent hospital treatment is likely to be needed. In the mean time, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition. If the services of a medical officer or medical doctor are readily available, the patient should be placed in his/her care and a copy of the SDS should be provided. Further action will be the responsibility of the medical specialist. If medical attention is not available on the worksite or surroundings send the patient to a hospital together with a copy of the SDS. Where medical attention is not immediately available or where the patient is more than 15 minutes from a hospital or unless instructed otherwise: INDUCE vomiting with fingers down the back of the throat, ONLY IF CONSCIOUS. Lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. NOTE: Wear a protective glove when inducing vomiting by mechanical means.

Indication of any immediate medical attention and special treatment needed

For acute or short term repeated exposures to ethylene glycol:

- Early treatment of ingestion is important. Ensure emesis is satisfactory.
- Test and correct for metabolic acidosis and hypocalcaemia.
- Apply sustained diuresis when possible with hypertonic mannitol.
- Evaluate renal status and begin haemodialysis if indicated. [I.L.O]
- P Rapid absorption is an indication that emesis or lavage is effective only in the first few hours. Cathartics and charcoal are generally not effective.
- Correct acidosis, fluid/electrolyte balance and respiratory depression in the usual manner. Systemic acidosis (below 7.2) can be treated with intravenous sodium bicarbonate solution.
- Ethanol therapy prolongs the half-life of ethylene glycol and reduces the formation of toxic metabolites.
- + Pyridoxine and thiamine are cofactors for ethylene glycol metabolism and should be given (50 to 100 mg respectively) intramuscularly, four times per day for 2 days.
- Magnesium is also a cofactor and should be replenished. The status of 4-methylpyrazole, in the treatment regime, is still uncertain. For clearance of the material and its metabolites, haemodialysis is much superior to peritoneal dialysis.

[Ellenhorn and Barceloux: Medical Toxicology]

It has been suggested that there is a need for establishing a new biological exposure limit before a workshift that is clearly below 100 mmol ethoxy-acetic acids per mole creatinine in morning urine of people occupationally exposed to ethylene glycol ethers. This arises from the finding that an increase in urinary stones may be associated with such exposures. *Laitinen J., et al: Occupational & Environmental Medicine 1996; 53, 595-600*

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

Foam.

Special hazards arising from the substrate or mixture

Fire Incompatibility None known.

Advice for firefighters

Fire Fighting Alert Fire Brigade and tell them location and nature of hazard. Fire/Explosion Hazard Non combustible.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	Environmental hazard - contain spillage. Clean up all spills immediately.
Major Spills	Clear area of personnel and move upwind. Environmental hazard - contain spillage.

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

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	 Avoid all personal contact, including inhalation. DO NOT allow clothing wet with material to stay in contact with skin 	
Other information	 Store in original containers. 	

Conditions for safe storage, including any incompatibilities

Suitable container	 Polyethylene or polypropylene container.
Storage incompatibility	None known

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)	ethylene glycol monobutyl ether	2-Butoxyethanol	121 mg/m3 / 25 ppm	Not Available	Not Available	Skin absorption
EMERGENCY LIMITS						
Ingredient	Material name			TEEL-1	TEEL-2	TEEL-3
ethylene glycol monobutyl ether	Butoxyethanol, 2-; (Glycol ether EB)			20 ppm	20 ppm	700 ppm
potassium pyrophosphate	potassium pyrophosphate Potassium pyrophosphate; (Tetrapotassium diphosphorate)			22 mg/m3	250 mg/m3	1900 mg/m3

potassium pyrophosphate	Potassium pyrophosphate; (Tetrapotassium diphosphorate)		22 mg/m3	250 mg/m3	1900 mg/m3
Ingredient	Original IDLH	Revised	IDLH		
ethylene glycol monobutyl ether	700 ppm	700 [Unch] ppm		
potassium pyrophosphate	Not Available	Not Availa	able		

MATERIAL DATA

For ethylene glycol monobutyl ether (2-butoxyethanol)

Odour Threshold Value: 0.10 ppm (detection), 0.35 ppm (recognition)

Although rats appear to be more susceptible than other animals anaemia is not uncommon amongst humans following exposure.

Exposure controls

Appropriate engineering	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard.
controls	

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RALI TRUCK KLEEN

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. The selection of suitable gloves does not only depend on thematerial, but also on further marks of quality which vary from manufacturer tomanufacturer.
Body protection	See Other protection below
Other protection	► Overalls.
Thermal hazards	Not Available

Respiratory protection

Type A Filter of sufficient capacity.

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the 'Exposure Standard' (or ES), respiratoryprotection is required. Degree of protection varies with both face-piece and Class offilter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 5 x ES	A-AUS / Class 1	-	A-PAPR-AUS / Class 1
up to 25 x ES	Air-line*	A-2	A-PAPR-2
up to 50 x ES	-	A-3	-
50+ x ES	-	Air-line**	-

^ - 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 pointorganic compounds(below 65 degC)

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance Greenish clear solution

Physical state	Liquid	Relative density (Water = 1)	1.01
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	9.5-10.5	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	100	Molecular weight (g/mol)	Not Available
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	90
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water (g/L)	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	54

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	 Unstable in the presence of incompatible materials.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models).		
Ingestion	Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual. Inorganic polyphosphates are used extensively in domestic and industrial products.		
Skin Contact	Evidence exists, or practical experience predicts, that the materia direct contact, and/or produces significant inflammation when ap twenty-four hours or more after the end of the exposure period. The material may accentuate any pre-existing dermatitis conditio Open cuts, abraded or irritated skin should not be exposed to this Entry into the blood-stream through, for example, cuts, abrasions	plied to the healthy intact skin of animals n s material	s, for up to four hours, such inflammation being present
Eye	Evidence exists, or practical experience predicts, that the materia ocular lesions which are present twenty-four hours or more after		
Chronic	Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. On the basis, primarily, of animal experiments, concern has been expressed that the material may produce carcinogenic or mutagenic effects; in respect of the available information, however, there presently exists inadequate data for making a satisfactory assessment.		
	тохісіту	IRRITATION	
RALI TRUCK KLEEN	Not Available	Not Available	
	тохісіту	IRRITATION	
	dermal (rat) LD50: >2000 mg/kg ^[1]	* [Union Carbide]	
ethylene glycol monobutyl ether	Inhalation (rat) LC50: 450 ppm/4hr ^[2]	Eye (rabbit): 100 mg	SEVERE
	Oral (rat) LD50: 250 mg/kg ^[2]	Eye (rabbit): 100 mg/	24h-moderate
		Skin (rabbit): 500 mg	, open; mild
	тохісіту		IRRITATION
potassium pyrophosphate	dermal (rat) LD50: >2000 mg/kg ^[1]		[Albright]
	Oral (rat) LD50: >300-<2000 mg/kg> ^[1] Nil reported		Nil reported

ETHYLENE GLYCOL MONOBUTYL ETHER	The material may produce severe irritation to the eye causing pronounced inflammation. The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). For ethylene glycol monoalkyl ethers and their acetates (EGMAEs): Typical members of this category are ethylene glycol propylene ether (EGPE), ethylene glycol butyl ether (EGBE) and ethylene glycol hexyl ether (EGHE) and their acetates. Exposure of pregnant rats to ethylene glycol monobutyl ether (2-butoxyethanol) at 100 ppm or rabbits at 200 ppm during organogenesis resulted in maternal toxicity and embryotoxicity including a decreased number of viable implantations per litter. For ethylene glycol:		
	Ethylene glycol is quickly and extensively absorbed through the gastro NOTE: Changes in kidney, liver, spleen and lungs are observed in ani		entrations of this substance by all routes. ** ASCC (NZ) SDS
POTASSIUM PYROPHOSPHATE	Asthma-like symptoms may continue for months or even years after exposure to the material ceases		
Acute Toxicity	✓	Carcinogenicity	\otimes
Skin Irritation/Corrosion	✓	Reproductivity	0
Serious Eye Damage/Irritation	✓ s	TOT - Single Exposure	0
Respiratory or Skin sensitisation	STO STO	T - Repeated Exposure	\otimes
Mutagenicity	\otimes	Aspiration Hazard	\odot
			 Data available but does not fill the criteria for classification Data required to make classification available

 \bigcirc – Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity Ingredient Endpoint Test Duration (hr) Species Value Source ethylene glycol monobutyl ether LC50 96 Fish 222.042mg/L 3

ethylene glycol monobutyl ether	EC50	48	Crustacea	164mg/L	2
ethylene glycol monobutyl ether	EC50	96	Algae or other aquatic plants	720mg/L	2
ethylene glycol monobutyl ether	EC50	384	Crustacea	51.539mg/L	3
ethylene glycol monobutyl ether	NOEC	168	Crustacea	56mg/L	2
potassium pyrophosphate	LC50	96	Fish	>100mg/L	2
potassium pyrophosphate	EC50	48	Crustacea	>100mg/L	2
potassium pyrophosphate	EC50	72	Algae or other aquatic plants	>100mg/L	2
potassium pyrophosphate	EC50	48	Algae or other aquatic plants	>=100- <=200mg/L	2
potassium pyrophosphate	NOEC	72	Algae or other aquatic plants	>100mg/L	2
Legend:	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3. 12 - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data				

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. **DO NOT** discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
ethylene glycol monobutyl ether	LOW (Half-life = 56 days)	LOW (Half-life = 1.37 days)

Bioaccumulative potential

Ingredient	Bioaccumulation
ethylene glycol monobutyl ether	LOW (BCF = 2.51)

Mobility in soil

Ingredient	Mobility
ethylene glycol monobutyl ether	HIGH (KOC = 1)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging	 Containers may still present a chemical hazard/ danger when empty. Legislation addressing waste disposal requirements may differ by country, state and/ or territory.
disposal	DO NOT allow wash water from cleaning or process equipment to enter drains.
	 Recycle wherever possible or consult manufacturer for recycling options.

Ensure that the disposal of material is carried out in accordance with Hazardous Substances (Disposal) Regulations 2001.

SECTION 14 TRANSPORT INFORMATION

Labels Required

	MEDLIANCIS DANGENCIS 3
Marine Pollutant	
HAZCHEM	•3Z

Land transport (UN)

UN number	3082		
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.		
Transport hazard class(es)	Class 9 Subrisk Not Applicable		
Packing group	II		

Environmental hazard	Not Applicable	
Special precautions for user	Special provisions274; 331; 335; 375Limited quantity5 L	

Air transport (ICAO-IATA / DGR)

UN number	3082			
UN proper shipping name	Environmentally hazard	Environmentally hazardous substance, liquid, n.o.s. *		
	ICAO/IATA Class	9		
Transport hazard class(es)	ICAO / IATA Subrisk	Not Applicable		
	ERG Code	9L		
		I		
Packing group	Ш			
Environmental hazard	Not Applicable			
Special precautions for user	Special provisions		A97 A158 A197	
	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	Passenger and Cargo Limited Quantity Packing Instructions		
	Passenger and Cargo	Limited Maximum Qty / Pack	30 kg G	

Sea transport (IMDG-Code / GGVSee)

UN number	3082		
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.		
Transport hazard class(es)	IMDG Class9IMDG SubriskNot Applicable		
Packing group	Ш		
Environmental hazard	Marine Pollutant		
Special precautions for user	EMS NumberF-A, S-FSpecial provisions274 335 969Limited Quantities5 L		

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

Not Applicable

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
HSR002530	Cleaning Products (Subsidiary Hazard) Group Standard 2006

ETHYLENE GLYCOL MONOBUTYL ETHER(111-76-2) 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 New Zealand Inventory of Chemicals (NZloC) New Zealand Workplace Exposure Standards (WES)

Chemicals

POTASSIUM PYROPHOSPHATE(7320-34-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

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
Not Applicable	Not Applicable	Not Applicable

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

Tracking Requirements

Not Applicable

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (potassium pyrophosphate; ethylene glycol monobutyl ether)
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

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

Definitions and abbreviations

PC-TWA: Permissible Concentration-Time Weighted Average PC-STEL: Permissible Concentration-Short Term Exposure Limit IARC: International Agency for Research on Cancer ACGIH: American Conference of Governmental Industrial Hygienists STEL: Short Term Exposure Limit TEEL: Temporary Emergency Exposure Limit。 IDLH: Immediately Dangerous to Life or Health Concentrations OSF: Odour Safety Factor NOAEL :No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level TLV: Threshold Limit Value LOD: Limit Of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index This document is copyright.