

ARDEX RA 56 Part B

Ardex (Ardex NZ)

Chemwatch: **73-9084** Version No: **3.1.1.1**

Safety Data Sheet according to HSNO Regulations

Chemwatch Hazard Alert Code: 2

Issue Date: **01/11/2019**Print Date: **14/07/2020**S.GHS.NZL.EN

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

Product Identifier

Product name	ARDEX RA 56 Part B
Synonyms	Not Available
Other means of identification	Not Available
Other means of identification	NOT AVAILABLE

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

Relevant identified uses Concrete repair.

Details of the supplier of the safety data sheet

Registered company name	Ardex (Ardex NZ)	
Address	2 Lane Street Woolston Christchurch New Zealand	
Telephone	+64 3384 3029	
Fax	+64 3384 9779	
Website	Not Available	
Email	Not Available	

Emergency telephone number

Association / Organisation	Ardex (Ardex NZ)
Emergency telephone numbers	+64 3 373 6900
Other emergency telephone numbers	0800 764 766 (NZ NPC)

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation. Not regulated for transport of Dangerous Goods.

CHEMWATCH HAZARD RATINGS

	Min	Max	
Flammability	1	:	
Toxicity	2		0 = Minimum
Body Contact	2		1 = Low 2 = Moderate
Reactivity	1		3 = High
Chronic	2	i	4 = Extreme

Classification ^[1]	Acute Toxicity (Oral) Category 5, Acute Toxicity (Dermal) Category 4, Acute Toxicity (Inhalation) Category 4, Skin Corrosion/Irritation Category 3, Eye Irritation Category 2, Chronic Aquatic Hazard Category 3	
Legend:	Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI	
Determined by Chemwatch using GHS/HSNO criteria	6.1D (dermal), 6.1D (inhalation), 6.1E (oral), 6.3B, 6.4A, 9.1C	

Label elements

Hazard pictogram(s)



SIGNAL WORD

Hazard statement(s)

H303	May be harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H316	Causes mild skin irritation.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statement(s) Prevention

P271	Use only outdoors or in a well-ventilated area.	
P261	Avoid breathing mist/vapours/spray.	
P273	Avoid release to the environment.	
P280	Wear protective gloves/protective clothing/eye protection/face protection.	

Precautionary statement(s) Response

P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.	
P321	Specific treatment (see advice on this label).	
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P332+P313	If skin irritation occurs: Get medical advice/attention.	

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

P501 Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
6846-50-0	<35	2,2,4-trimethyl-1,3-pentanediol diisobutyrate
9049-71-2	<30	sucrose, propoxylated
25791-96-2	<30	polypropylene glycol glyceryl ether

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Description of first aid measure	rescription of this aid measures		
Eye Contact	 If this product comes in contact with the eyes: Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. 		
Skin Contact	If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.		
Inhalation	 If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor. 		
Ingestion	 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. 		

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

- ► Foam.
- ► Dry chemical powder.
- ► BCF (where regulations permit).
- ▶ Carbon dioxide.

Special hazards arising from the substrate or mixture

Fire Incompatibility	▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result		
Advice for firefighters			
Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Use water delivered as a fine spray to control fire and cool adjacent area. 		
Fire/Explosion Hazard	 ▶ Combustible. ▶ Slight fire hazard when exposed to heat or flame. ▶ Heating may cause expansion or decomposition leading to violent rupture of containers. ▶ On combustion, may emit toxic fumes of carbon monoxide (CO). Combustion products include: carbon dioxide (CO2) other pyrolysis products typical of burning organic material. May emit poisonous fumes. May emit corrosive fumes. 		

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	Slippery when spilt. • Remove all ignition sources. • Clean up all spills immediately. • Avoid breathing vapours and contact with skin and eyes. • Control personal contact with the substance, by using protective equipment.
Major Spills	Slippery when spilt. Moderate hazard. Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves.

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. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. DO NOT allow clothing wet with material to stay in contact with skin
Other information	Storage temperature: 18-30 degC. Do not exceed 48 degC. In Store in original containers. Keep containers securely sealed. No smoking, naked lights or ignition sources. Store in a cool, dry, well-ventilated area.

Conditions for safe storage, including any incompatibilities

Suitable container	 Metal can or drum Packaging as recommended by manufacturer. Check all containers are clearly labelled and free from leaks. 	
Storage incompatibility	 Avoid reaction with oxidising agents Avoid strong bases. 	

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

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Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3	
ARDEX RA 56 Part B	Not Available	Not Available	Not Available	Not Available	
Ingredient	Original IDLH		Original IDLH Revised IDLH		
2,2,4-trimethyl-1,3-pentanediol diisobutyrate	Not Available		Not Available		
sucrose, propoxylated	Not Available		ropoxylated Not Available Not Available		
polypropylene glycol glyceryl ether	Not Available		Not Available		

OCCUPATIONAL EXPOSURE BANDING

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
2,2,4-trimethyl-1,3-pentanediol diisobutyrate	Е	≤ 0.1 ppm
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to range of exposure concentrations that are expected to protect worker health.	

Exposure controls

Appropriate engineering controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

Personal protection











Eye and face protection

- Safety glasses with side shields
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.

Skin protection

See Hand protection below

► Wear chemical protective gloves, e.g. PVC.

► Wear safety footwear or safety gumboots, e.g. Rubber

Hands/feet protection

The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.

Personal hygiene is a key element of effective hand care.

Body protection

See Other protection below

Other protection

- Overalls.P.V.C apron.
- ► Barrier cream.
- ▶ Skin cleansing cream

Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Required minimum protection factor	Maximum gas/vapour concentration present in air p.p.m. (by volume)	Half-face Respirator	Full-Face Respirator
up to 10	1000	A-AUS / Class1 P2	-
up to 50	1000	-	A-AUS / Class 1 P2
up to 50	5000	Airline *	-
up to 100	5000	-	A-2 P2
up to 100	10000	-	A-3 P2
100+			Airline**

^{* -} 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)

- Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning

properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.

Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Light grey liquid with slight odour.		
Physical state	Liquid	Relative density (Water = 1)	Not Available
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
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)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	129 (TCC)	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	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)	Not Available
Vapour pressure (kPa)	Negligible	Gas group	Not Available
Solubility in water	Not Available	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	 Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
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

Information on toxicological ef	tects			
Inhaled	Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful. The material is not thought to produce respiratory irritation (as classified by EC Directives using animal models). Nevertheless inhalation of vapours, fumes or aerosols, especially for prolonged periods, may produce respiratory discomfort and occasionally, distress. Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo. Inhalation hazard is increased at higher temperatures.			
Ingestion	Accidental ingestion of the material may be damaging to the health of the	e individual.		
Skin Contact	Skin contact with the material may be harmful; systemic effects may result following absorption. There is some evidence to suggest that the material may cause mild but significant inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterised by redness, swelling and blistering. Repeated exposure may cause skin cracking, flaking or drying following normal handling and use. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.			
Еуе	This material can cause eye irritation and damage in some persons.			
Chronic	Harmful: danger of serious damage to health by prolonged exposure through inhalation. This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects. Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.			
ARDEX RA 56 Part B	TOXICITY	IRRITATION		
AKDEA KA 30 PAR B	Not Available	Not Available		

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2,2,4-trimethyl-1,3-pentanediol diisobutyrate	TOXICITY	IRRITATION	
	Dermal (rabbit) LD50: >2000 mg/kg ^[1]	Eye (rabbit): very	slight**
	Inhalation (rat) LC50: >7.95 mg/l/6h***[2]	Eye: no adverse e	ffect observed (not irritating) ^[1]
unsobutyrate	Oral (rat) LD50: >2000 mg/kg ^[1]	Skin (guinea pig):	5000mg/kg-mild
		Skin: no adverse e	effect observed (not irritating) ^[1]
	TOXICITY	IRRITATION	
sucrose, propoxylated	Oral (rat) LD50: >2000 mg/kg ^[1]	Eye: no adverse e	ffect observed (not irritating) ^[1]
		Skin: no adverse e	effect observed (not irritating) ^[1]
	TOXICITY	IRRITATION	
	dermal (rat) LD50: >2000 mg/kg ^[1]	Eye: no adverse e	ffect observed (not irritating) ^[1]
polypropylene glycol glyceryl ether	Inhalation (rat) LC50: >200 mg/l/h*[2]	Eye: non-irritant *	
etilei	Oral (rat) LD50: >2000 mg/kg ^[1]	Skin (rabbit): 500	mg (open)-mild
		Skin: no adverse e	effect observed (not irritating) ^[1]
Legend:	Value obtained from Europe ECHA Registered Substa specified data extracted from RTECS - Register of Toxic	-	ned from manufacturer's SDS. Unless otherwise
	.5	Effect of chemical Substances	
2,2,4-TRIMETHYL- 1,3-PENTANEDIOL DIISOBUTYRATE	For 2,2,4-trimethyl-1,3-pentanediol diisobutyrate (TXIB) Laboratory testing showed that TXIB does not cause ger affect the adult. NOAEL oral (rat), 103 days = 1% in diet *** NOEL oral (c aberration assay: Negative (+/- activation) CHO/HGPRT Negative (+/- activation) *,**,*** Various suppliers MSDS	netic toxicity. It may damage the kidnoolog), 90 days = 1% in diet *** Mutage	enicity/Genotoxicity Data: *** Chromosomal
1,3-PENTANEDIOL	For 2,2,4-trimethyl-1,3-pentanediol diisobutyrate (TXIB) Laboratory testing showed that TXIB does not cause ger affect the adult. NOAEL oral (rat), 103 days = 1% in diet *** NOEL oral (c aberration assay: Negative (+/- activation) CHO/HGPRT	netic toxicity. It may damage the kidnoog), 90 days = 1% in diet *** Mutage assay: Negative (+/- activation) Saln	enicity/Genotoxicity Data: *** Chromosomal
1,3-PENTANEDIOL DIISOBUTYRATE	For 2,2,4-trimethyl-1,3-pentanediol diisobutyrate (TXIB) Laboratory testing showed that TXIB does not cause ger affect the adult. NOAEL oral (rat), 103 days = 1% in diet *** NOEL oral (c aberration assay: Negative (+/- activation) CHO/HGPRT Negative (+/- activation) *,**,*** Various suppliers MSDS	netic toxicity. It may damage the kidnolog), 90 days = 1% in diet *** Mutage assay: Negative (+/- activation) Salnure search.	enicity/Genotoxicity Data: *** Chromosomal
1,3-PENTANEDIOL DIISOBUTYRATE SUCROSE, PROPOXYLATED POLYPROPYLENE GLYCOL	For 2,2,4-trimethyl-1,3-pentanediol diisobutyrate (TXIB) Laboratory testing showed that TXIB does not cause ger affect the adult. NOAEL oral (rat), 103 days = 1% in diet *** NOEL oral (c aberration assay: Negative (+/- activation) CHO/HGPRT Negative (+/- activation) *,**,*** Various suppliers MSDS No significant acute toxicological data identified in literate	netic toxicity. It may damage the kidnolog), 90 days = 1% in diet *** Mutage assay: Negative (+/- activation) Salnure search. BASF Multranol 9175 SDS	enicity/Genotoxicity Data: *** Chromosomal nonella-E.coli reverse mutation assay (Ames test):
1,3-PENTANEDIOL DIISOBUTYRATE SUCROSE, PROPOXYLATED POLYPROPYLENE GLYCOL GLYCERYL ETHER 2,2,4-TRIMETHYL- 1,3-PENTANEDIOL DIISOBUTYRATE & POLYPROPYLENE GLYCOL	For 2,2,4-trimethyl-1,3-pentanediol diisobutyrate (TXIB) Laboratory testing showed that TXIB does not cause ger affect the adult. NOAEL oral (rat), 103 days = 1% in diet **** NOEL oral (c aberration assay: Negative (+/- activation) CHO/HGPRT Negative (+/- activation) *,**,*** Various suppliers MSDS No significant acute toxicological data identified in literate Data for Niax Polyol L-56 Data for Niax Polyol LG-168 * I	netic toxicity. It may damage the kidnolog), 90 days = 1% in diet *** Mutage assay: Negative (+/- activation) Salnure search. BASF Multranol 9175 SDS	enicity/Genotoxicity Data: *** Chromosomal nonella-E.coli reverse mutation assay (Ames test):
1,3-PENTANEDIOL DIISOBUTYRATE SUCROSE, PROPOXYLATED POLYPROPYLENE GLYCOL GLYCERYL ETHER 2,2,4-TRIMETHYL- 1,3-PENTANEDIOL DIISOBUTYRATE & POLYPROPYLENE GLYCOL GLYCERYL ETHER	For 2,2,4-trimethyl-1,3-pentanediol diisobutyrate (TXIB) Laboratory testing showed that TXIB does not cause ger affect the adult. NOAEL oral (rat), 103 days = 1% in diet *** NOEL oral (caberration assay: Negative (+/- activation) CHO/HGPRT Negative (+/- activation) *,**,*** Various suppliers MSDS No significant acute toxicological data identified in literatudate for Niax Polyol L-56 Data for Niax Polyol LG-168 * In the material may cause skin irritation after prolonged or vesicles, scaling and thickening of the skin.	netic toxicity. It may damage the kidnolog), 90 days = 1% in diet *** Mutage assay: Negative (+/- activation) Salnure search. BASF Multranol 9175 SDS repeated exposure and may produce	e on contact skin redness, swelling, the production of
1,3-PENTANEDIOL DIISOBUTYRATE SUCROSE, PROPOXYLATED POLYPROPYLENE GLYCOL GLYCERYL ETHER 2,2,4-TRIMETHYL- 1,3-PENTANEDIOL DIISOBUTYRATE & POLYPROPYLENE GLYCOL GLYCERYL ETHER Acute Toxicity	For 2,2,4-trimethyl-1,3-pentanediol diisobutyrate (TXIB) Laboratory testing showed that TXIB does not cause ger affect the adult. NOAEL oral (rat), 103 days = 1% in diet *** NOEL oral (caberration assay: Negative (+/- activation) CHO/HGPRT Negative (+/- activation) *,**,*** Various suppliers MSDS No significant acute toxicological data identified in literate Data for Niax Polyol L-56 Data for Niax Polyol LG-168 * I The material may cause skin irritation after prolonged or vesicles, scaling and thickening of the skin.	netic toxicity. It may damage the kidnolog), 90 days = 1% in diet *** Mutage assay: Negative (+/- activation) Salnure search. BASF Multranol 9175 SDS repeated exposure and may produce Carcinogenicity	enicity/Genotoxicity Data: *** Chromosomal nonella-E.coli reverse mutation assay (Ames test): e on contact skin redness, swelling, the production of
1,3-PENTANEDIOL DIISOBUTYRATE SUCROSE, PROPOXYLATED POLYPROPYLENE GLYCOL GLYCERYL ETHER 2,2,4-TRIMETHYL- 1,3-PENTANEDIOL DIISOBUTYRATE & POLYPROPYLENE GLYCOL GLYCERYL ETHER Acute Toxicity Skin Irritation/Corrosion	For 2,2,4-trimethyl-1,3-pentanediol diisobutyrate (TXIB) Laboratory testing showed that TXIB does not cause ger affect the adult. NOAEL oral (rat), 103 days = 1% in diet *** NOEL oral (c aberration assay: Negative (+/- activation) CHO/HGPRT Negative (+/- activation) *,**,*** Various suppliers MSDS No significant acute toxicological data identified in literatu Data for Niax Polyol L-56 Data for Niax Polyol LG-168 * I The material may cause skin irritation after prolonged or vesicles, scaling and thickening of the skin.	netic toxicity. It may damage the kidnolog), 90 days = 1% in diet *** Mutage assay: Negative (+/- activation) Salnoure search. BASF Multranol 9175 SDS repeated exposure and may produce Carcinogenicity Reproductivity	enicity/Genotoxicity Data: *** Chromosomal nonella-E.coli reverse mutation assay (Ames test): e on contact skin redness, swelling, the production of

Legend:

X − Data either not available or does not fill the criteria for classification
 ✓ − Data available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Oxidity					
ARDEX RA 56 Part B	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	1.203mg/L	3
2,2,4-trimethyl-1,3-pentanediol diisobutyrate	EC50	48	Crustacea	>1.46mg/L	2
unsobutyrate	EC50	96	Algae or other aquatic plants	0.107mg/L	3
	NOEC	504	Crustacea	0.7mg/L	2
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	>1-mg/L	2
sucrose, propoxylated	EC50	48	Crustacea	9-890mg/L	2
	NOEC	504	Crustacea	>=10mg/L	2
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
polypropylene glycol glyceryl	LC50	96	Fish	>1-mg/L	2
ether	EC50	48	Crustacea	>100mg/L	2
	EC50	72	Algae or other aquatic plants	>100mg/L	2

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	EC0 NOEC	72 504	Algae or other aquatic plants Crustacea	>=100mg/L 2 >=10mg/L 2
Legend:	V3.12 (QSAR) -		nistered Substances - Ecotoxicological Information - An N., Ecotox database - Aquatic Toxicity Data 5. ECETOC N.) - Bioconcentration Data 8. Vendor Data	

DO NOT discharge into sewer or waterways.

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

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air	
2,2,4-trimethyl-1,3-pentanediol diisobutyrate	HIGH	HIGH	

Bioaccumulative potential

Ingredient	Bioaccumulation	
2,2,4-trimethyl-1,3-pentanediol diisobutyrate	LOW (BCF = 1)	
polypropylene glycol glyceryl ether	LOW (BCF = 7)	

Mobility in soil

Ingredient	Mobility
2,2,4-trimethyl-1,3-pentanediol diisobutyrate	LOW (KOC = 607.5)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

- ▶ Containers may still present a chemical hazard/ danger when empty.
- ► Return to supplier for reuse/ recycling if possible.

Otherwise:

- If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.
- ▶ Where possible retain label warnings and SDS and observe all notices pertaining to the product.

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

A Hierarchy of Controls seems to be common - the user should investigate:

- ► Reduction
- Product / Packaging disposal
- ► Reuse
- ► Recycling
- Disposal (if all else fails)

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use.

- ► DO NOT allow wash water from cleaning or process equipment to enter drains
- ▶ It may be necessary to collect all wash water for treatment before disposal.
- ▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- ▶ Where in doubt contact the responsible authority.
- ▶ Recycle wherever possible or consult manufacturer for recycling options.
- ► Consult State Land Waste Authority for disposal.
- Bury or incinerate residue at an approved site.
- ▶ Recycle containers if possible, or dispose of in an authorised landfill.

Ensure that the hazardous substance is disposed in accordance with the Hazardous Substances (Disposal) Notice 2017

Disposal Requirements

Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package. The package must be disposed according to the manufacturer's directions taking into account the material it is made of. Packages which hazardous content have been appropriately treated and removed may be recycled.

The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous.

SECTION 14 TRANSPORT INFORMATION

Labels Required

<u> </u>	
Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (UN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL 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

HSR002624 N.O.S. (Subsidiary Hazard) Group Standard 2017 HSR002535 Gas Under Pressure Mixtures (Subsidiary Hazard) Group Standard 2017 HSR002530 Cleaning Products (Subsidiary Hazard) Group Standard 2017 HSR002531 Cleaning Products (Subsidiary Hazard) Group Standard 2017 HSR002532 Fuel Additives (Subsidiary Hazard) Group Standard 2017 HSR002531 Animal Nutritional and Animal Care Products Group Standard 2017 HSR002632 Lubricants, Lubricant Additives, Coolants and Anti-freeze Agents (Subsidiary Hazard) Group Standard 2017 HSR002632 Lubricants, Lubricant Additives, Coolants and Anti-freeze Agents (Subsidiary Hazard) Group Standard 2017 HSR002644 Polymers (Subsidiary Hazard) Group Standard 2017 HSR002670 Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017 HSR002680 Embalming Products (Subsidiary Hazard) Group Standard 2017 HSR002681 Photographic Chemicals (Subsidiary Hazard) Group Standard 2017 HSR0026826 Embalming Products (Subsidiary Hazard) Group Standard 2017 HSR002683 Dental Products (Subsidiary Hazard) Group Standard 2017 HSR002684 Dental Products (Subsidiary Hazard) Group Standard 2017 HSR002683 Leather and Textlle Products (Subsidiary Hazard) Group Standard 2017	HSR Number	Group Standard
HSR002596 Laboratory Chemicals and Reagent Kits Group Standard 2017 HSR002530 Cleaning Products (Subsidiary Hazard) Group Standard 2017 HSR002519 Aerosols (Subsidiary Hazard) Group Standard 2017 HSR002521 Animal Nutritional and Animal Care Products Group Standard 2017 HSR002521 Animal Nutritional and Animal Care Products Group Standard 2017 HSR002606 Lubricants, Lubricant Additives, Coolants and Anii-freeze Agents (Subsidiary Hazard) Group Standard 2017 HSR002644 Polymers (Subsidiary Hazard) Group Standard 2017 HSR002647 Reagent Kits Group Standard 2017 HSR002667 Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017 HSR002638 Photographic Chemicals (Subsidiary Hazard) Group Standard 2017 HSR002658 Embalming Products (Subsidiary Hazard) Group Standard 2017 HSR002658 Embalming Products (Subsidiary Hazard) Group Standard 2017 HSR002679 Food Additives and Fragrance Materials (Subsidiary Hazard) Group Standard 2017 HSR002658 Dental Products (Subsidiary Hazard) Group Standard 2017 HSR002664 Water Treatment Chemicals (Subsidiary Hazard) Group Standard 2017 HSR002664 Water Treatment Chemicals (Subsidiary Hazard) Group Standard 2017 HSR002664 Water Treatment Chemicals (Subsidiary Hazard) Group Standard 2017 HSR002664 Parmaceutical Active Ingredients Group Standard 2017 HSR002665 Permaceutical Active Ingredients Group Standard 2017 HSR002666 Leather and Textile Products (Subsidiary Hazard) Group Standard 2017 HSR002668 Refining Catalysts Group Standard 2017 HSR002669 Cornsion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR002669 Cornsion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR002669 Cornsion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR002669 Veterinary Medicine (Limited Pack Size, Finished Dose) Standard 2017 HSR00267 Veterinary Medicines (Non-dispersive Closed System Application) Group Standard 2017 HSR002680 Textinary Medicines (Non-dispersive Closed System Application) Group Standard 2017 HSR002680 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Grou	HSR002624	N.O.S. (Subsidiary Hazard) Group Standard 2017
HSR002530 Cleaning Products (Subsidiary Hazard) Group Standard 2017 HSR002585 Fuel Additives (Subsidiary Hazard) Group Standard 2017 HSR002591 Aerosols (Subsidiary Hazard) Group Standard 2017 HSR002521 Animal Nutritional and Animal Care Products Group Standard 2017 HSR002606 Lubricants, Lubricant Additives, Coolants and Anti-freeze Agents (Subsidiary Hazard) Group Standard 2017 HSR002644 Polymers (Subsidiary Hazard) Group Standard 2017 HSR002647 Reagent Kits Group Standard 2017 HSR002667 Sufface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017 HSR002688 Photographic Chemicals (Subsidiary Hazard) Group Standard 2017 HSR002658 Embalming Products (Subsidiary Hazard) Group Standard 2017 HSR002565 Embalming Products (Subsidiary Hazard) Group Standard 2017 HSR002568 Dental Products (Subsidiary Hazard) Group Standard 2017 HSR002578 Food Additives and Fragrance Materials (Subsidiary Hazard) Group Standard 2017 HSR002558 Dental Products (Subsidiary Hazard) Group Standard 2017 HSR002564 Water Treatment Chemicals (Subsidiary Hazard) Group Standard 2017 HSR002573 Fire Fighting Chemicals Group Standard 2017 HSR002574 Pharmaceutical Advive Ingredients Group Standard 2017 HSR002575 Pharmaceutical Advive Ingredients Group Standard 2017 HSR002571 Fertilisers (Subsidiary Hazard) Group Standard 2017 HSR002571 Fertilisers (Subsidiary Hazard) Group Standard 2017 HSR002563 Solvents (Subsidiary Hazard) Group Standard 2017 HSR002564 Construction Products (Subsidiary Hazard) Group Standard 2017 HSR002549 Corrosion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR002549 Veterinary Medicines (Non-dispersive Closed System Application) Group Standard 2017 HSR100759 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100759 Tattoo and Permanent Makeup Substances Group Standard 2017 HSR100759 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017	HSR002535	Gas Under Pressure Mixtures (Subsidiary Hazard) Group Standard 2017
HSR002585 Fuel Additives (Subsidiary Hazard) Group Standard 2017 HSR002519 Aerosols (Subsidiary Hazard) Group Standard 2017 HSR002521 Animal Nutritional and Animal Care Products Group Standard 2017 HSR002606 Lubricants, Lubricant Additives, Coolants and Anil-freeze Agents (Subsidiary Hazard) Group Standard 2017 HSR002644 Polymers (Subsidiary Hazard) Group Standard 2017 HSR002647 Reagent Kits Group Standard 2017 HSR002667 Surface Coalings and Colourants (Subsidiary Hazard) Group Standard 2017 HSR002688 Photographic Chemicals (Subsidiary Hazard) Group Standard 2017 HSR002658 Embalming Products (Subsidiary Hazard) Group Standard 2017 HSR002565 Embalming Products (Subsidiary Hazard) Group Standard 2017 HSR002568 Dental Products (Subsidiary Hazard) Group Standard 2017 HSR002568 Dental Products (Subsidiary Hazard) Group Standard 2017 HSR002558 Dental Products (Subsidiary Hazard) Group Standard 2017 HSR002568 Water Treatment Chemicals (Subsidiary Hazard) Group Standard 2017 HSR002573 Fire Fighting Chemicals Group Standard 2017 HSR002500 Leather and Taxtile Products (Subsidiary Hazard) Group Standard 2017 HSR002571 Ferilisers (Subsidiary Hazard) Group Standard 2017 HSR002564 Refining Catalysts Group Standard 2017 HSR002565 Solvents (Subsidiary Hazard) Group Standard 2017 HSR002564 Refining Catalysts Group Standard 2017 HSR002565 Solvents (Subsidiary Hazard) Group Standard 2017 HSR002569 Corrosion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR002569 Corrosion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR002569 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100758 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100759 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100759 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017	HSR002596	Laboratory Chemicals and Reagent Kits Group Standard 2017
HSR002519 Aerosols (Subsidary Hazard) Group Standard 2017 HSR002521 Animal Nutritional and Animal Care Products Group Standard 2017 HSR002666 Lubricants, Lubricant Additives, Coolants and Anti-freeze Agents (Subsidiary Hazard) Group Standard 2017 HSR002644 Polymers (Subsidiary Hazard) Group Standard 2017 HSR002647 Reagent Kits Group Standard 2017 HSR002647 Surface Coalings and Colourants (Subsidiary Hazard) Group Standard 2017 HSR002638 Photographic Chemicals (Subsidiary Hazard) Group Standard 2017 HSR002565 Embalming Products (Subsidiary Hazard) Group Standard 2017 HSR002578 Food Additives and Fragrance Materials (Subsidiary Hazard) Group Standard 2017 HSR002558 Dental Products (Subsidiary Hazard) Group Standard 2017 HSR002564 Water Treatment Chemicals (Subsidiary Hazard) Group Standard 2017 HSR002573 Fire Fighting Chemicals (Subsidiary Hazard) Group Standard 2017 HSR002573 Fire Fighting Chemicals Group Standard 2017 HSR002560 Leather and Textile Products (Subsidiary Hazard) Group Standard 2017 HSR002571 Ferilisers (Subsidiary Hazard) Group Standard 2017 HSR002561 Refining Catalysts Group Standard 2017 HSR002563 Solvents (Subsidiary Hazard) Group Standard 2017 HSR002564 Refining Catalysts Group Standard 2017 HSR002565 Solvents (Subsidiary Hazard) Group Standard 2017 HSR002564 Construction Products (Subsidiary Hazard) Group Standard 2017 HSR002565 Solvents (Subsidiary Hazard) Group Standard 2017 HSR002564 Construction Products (Subsidiary Hazard) Group Standard 2017 HSR002569 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100756 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100758 Additives, Products (Subsidiary Hazard) Group Standard 2017 HSR100758 Additives, Products (Subsidiary Hazard) Group Standard 2017 HSR100758 Additives, Products (Subsidiary Hazard) Group Standard 2017 HSR100758 Additives Archieves Croup Standard 2017 HSR100759 Additives, Products (Subsidiary Hazard) Group Standard 2017	HSR002530	Cleaning Products (Subsidiary Hazard) Group Standard 2017
HSR002521 Animal Nutritional and Animal Care Products Group Standard 2017 HSR002666 Lubricants, Lubricant Additives, Coolants and Anti-freeze Agents (Subsidiary Hazard) Group Standard 2017 HSR002647 Reagent Kits Group Standard 2017 HSR002670 Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017 HSR002683 Photographic Chemicals (Subsidiary Hazard) Group Standard 2017 HSR002585 Embalming Products (Subsidiary Hazard) Group Standard 2017 HSR002578 Food Additives and Fragrance Materials (Subsidiary Hazard) Group Standard 2017 HSR002586 Dental Products (Subsidiary Hazard) Group Standard 2017 HSR002586 Dental Products (Subsidiary Hazard) Group Standard 2017 HSR002587 Fire Fighting Chemicals (Subsidiary Hazard) Group Standard 2017 HSR002584 Water Treatment Chemicals (Subsidiary Hazard) Group Standard 2017 HSR002585 Fire Fighting Chemicals Group Standard 2017 HSR002586 Pharmaceutical Active Ingredients Group Standard 2017 HSR002586 Pharmaceutical Active Ingredients Group Standard 2017 HSR002580 Leather and Textile Products (Subsidiary Hazard) Group Standard 2017 HSR002581 Ferilisers (Subsidiary Hazard) Group Standard 2017 HSR002584 Refining Catalysts Group Standard 2017 HSR002584 Construction Products (Subsidiary Hazard) Group Standard 2017 HSR002584 Construction Products (Subsidiary Hazard) Group Standard 2017 HSR002584 Construction Froducts (Subsidiary Hazard) Group Standard 2017 HSR002584 Construction Froducts (Subsidiary Hazard) Group Standard 2017 HSR002589 Corrosion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR00757 Veterinary Medicines (Non-dispersive Closed System Application) Group Standard 2017 HSR100758 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100759 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100580 Tatto and Permanent Makeup Substances Group Standard 2017 HSR002612 Metal Industry Products (Subsidiary Hazard) Group Standard 2017	HSR002585	Fuel Additives (Subsidiary Hazard) Group Standard 2017
HSR002606 Lubricants, Lubricant Additives, Coolants and Anti-freeze Agents (Subsidiary Hazard) Group Standard 2017 HSR002644 Polymers (Subsidiary Hazard) Group Standard 2017 HSR002670 Reagent Kits Group Standard 2017 HSR002638 Photographic Chemicals (Subsidiary Hazard) Group Standard 2017 HSR002638 Photographic Chemicals (Subsidiary Hazard) Group Standard 2017 HSR002656 Embalming Products (Subsidiary Hazard) Group Standard 2017 HSR002578 Food Additives and Fragrance Materials (Subsidiary Hazard) Group Standard 2017 HSR00258 Dental Products (Subsidiary Hazard) Group Standard 2017 HSR00259 Fire Fighting Chemicals Group Standard 2017 HSR00259 Pharmaceutical Active Ingredients Group Standard 2017 HSR00250 Leather and Textile Products (Subsidiary Hazard) Group Standard 2017 HSR00250 Leather and Textile Products (Subsidiary Hazard) Group Standard 2017 HSR00254 Refining Catalysts Group Standard 2017 HSR00254 Construction Products (Subsidiary Hazard) Group Standard 2017 HSR00254 Construction Products (Subsidiary Hazard) Group Standard 2017 HSR00254 Corrosion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR00254 Veterinary Medicine (Limited Pack Size, Finished Dose) Standard 2017 HSR0075 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100759 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR002612 Metal Industry Products (Subsidiary Hazard) Group Standard 2017 HSR00263 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017	HSR002519	Aerosols (Subsidiary Hazard) Group Standard 2017
HSR002644 Polymers (Subsidiary Hazard) Group Standard 2017 HSR002670 Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017 HSR002638 Photographic Chemicals (Subsidiary Hazard) Group Standard 2017 HSR002656 Embalming Products (Subsidiary Hazard) Group Standard 2017 HSR002578 Food Additives and Fragrance Materials (Subsidiary Hazard) Group Standard 2017 HSR00258 Dental Products (Subsidiary Hazard) Group Standard 2017 HSR00258 Dental Products (Subsidiary Hazard) Group Standard 2017 HSR002684 Water Treatment Chemicals (Subsidiary Hazard) Group Standard 2017 HSR002673 Fire Fighting Chemicals Group Standard 2017 HSR002573 Fire Fighting Chemicals Group Standard 2017 HSR002600 Leather and Textile Products (Subsidiary Hazard) Group Standard 2017 HSR002600 Leather and Textile Products (Subsidiary Hazard) Group Standard 2017 HSR002614 Refining Catalysts Group Standard 2017 HSR002648 Refining Catalysts Group Standard 2017 HSR002649 Construction Products (Subsidiary Hazard) Group Standard 2017 HSR002540 Construction Products (Subsidiary Hazard) Group Standard 2017 HSR002540 Corrosion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR002540 Corrosion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR002540 Veterinary Medicine (Limited Pack Size, Finished Dose) Standard 2017 HSR100757 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100759 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR002612 Metal Industry Products (Subsidiary Hazard) Group Standard 2017 HSR002612 Metal Industry Products (Subsidiary Hazard) Group Standard 2017 HSR002630 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017	HSR002521	Animal Nutritional and Animal Care Products Group Standard 2017
HSR002647 Reagent Kits Group Standard 2017 HSR002670 Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017 HSR002688 Photographic Chemicals (Subsidiary Hazard) Group Standard 2017 HSR002656 Embalming Products (Subsidiary Hazard) Group Standard 2017 HSR002578 Food Additives and Fragrance Materials (Subsidiary Hazard) Group Standard 2017 HSR002568 Dental Products (Subsidiary Hazard) Group Standard 2017 HSR002568 Dental Products (Subsidiary Hazard) Group Standard 2017 HSR002684 Water Treatment Chemicals (Subsidiary Hazard) Group Standard 2017 HSR002673 Fire Fighting Chemicals Group Standard 2017 HSR002673 Pharmaceutical Active Ingredients Group Standard 2017 HSR00260 Leather and Textile Products (Subsidiary Hazard) Group Standard 2017 HSR00260 Leather and Textile Products (Subsidiary Hazard) Group Standard 2017 HSR002648 Refining Catalysts Group Standard 2017 HSR002648 Refining Catalysts Group Standard 2017 HSR002649 Construction Products (Subsidiary Hazard) Group Standard 2017 HSR002540 Construction Products (Subsidiary Hazard) Group Standard 2017 HSR002549 Corrosion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR002549 Veterinary Medicine (Limited Pack Size, Finished Dose) Standard 2017 HSR100759 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100759 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR002612 Metal Industry Products (Subsidiary Hazard) Group Standard 2017 HSR002612 Metal Industry Products (Subsidiary Hazard) Group Standard 2017 HSR002603 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017	HSR002606	Lubricants, Lubricant Additives, Coolants and Anti-freeze Agents (Subsidiary Hazard) Group Standard 2017
HSR002670 Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017 HSR002668 Photographic Chemicals (Subsidiary Hazard) Group Standard 2017 HSR002565 Embalming Products (Subsidiary Hazard) Group Standard 2017 HSR002578 Food Additives and Fragrance Materials (Subsidiary Hazard) Group Standard 2017 HSR00258 Dental Products (Subsidiary Hazard) Group Standard 2017 HSR002584 Water Treatment Chemicals (Subsidiary Hazard) Group Standard 2017 HSR002673 Fire Fighting Chemicals Group Standard 2017 HSR100425 Pharmaceutical Active Ingredients Group Standard 2017 HSR002600 Leather and Textile Products (Subsidiary Hazard) Group Standard 2017 HSR002571 Fertilisers (Subsidiary Hazard) Group Standard 2017 HSR00261 Refining Catalysts Group Standard 2017 HSR002653 Solvents (Subsidiary Hazard) Group Standard 2017 HSR002644 Construction Products (Subsidiary Hazard) Group Standard 2017 HSR002549 Corrosion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR002549 Corrosion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR100757 Veterinary Medicine (Limited Pack Size, Finished Dose) Standard 2017 HSR100758 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100759 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100580 Tattoo and Permanent Makeup Substances Group Standard 2017 HSR002612 Metal Industry Products (Subsidiary Hazard) Group Standard 2017 HSR002630 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017	HSR002644	Polymers (Subsidiary Hazard) Group Standard 2017
HSR002565 Embalming Products (Subsidiary Hazard) Group Standard 2017 HSR002578 Food Additives and Fragrance Materials (Subsidiary Hazard) Group Standard 2017 HSR00258 Dental Products (Subsidiary Hazard) Group Standard 2017 HSR00258 Dental Products (Subsidiary Hazard) Group Standard 2017 HSR00258 Dental Products (Subsidiary Hazard) Group Standard 2017 HSR002573 Fire Fighting Chemicals Group Standard 2017 HSR002573 Fire Fighting Chemicals Group Standard 2017 HSR002500 Leather and Textile Products (Subsidiary Hazard) Group Standard 2017 HSR002501 Fertilisers (Subsidiary Hazard) Group Standard 2017 HSR002571 Fertilisers (Subsidiary Hazard) Group Standard 2017 HSR002548 Refining Catalysts Group Standard 2017 HSR002549 Solvents (Subsidiary Hazard) Group Standard 2017 HSR002544 Construction Products (Subsidiary Hazard) Group Standard 2017 HSR002549 Corrosion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR100757 Veterinary Medicines (Non-dispersive Closed System Application) Group Standard 2017 HSR100758 Veterinary Medicines (Non-dispersive Closed System Application) Group Standard 2017 HSR100580 Tattoo and Permanent Makeup Substances Group Standard 2017 HSR002612 Metal Industry Products (Subsidiary Hazard) Group Standard 2017 HSR002503 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017	HSR002647	Reagent Kits Group Standard 2017
HSR002565 Embalming Products (Subsidiary Hazard) Group Standard 2017 HSR002578 Food Additives and Fragrance Materials (Subsidiary Hazard) Group Standard 2017 HSR002568 Dental Products (Subsidiary Hazard) Group Standard 2017 HSR002684 Water Treatment Chemicals (Subsidiary Hazard) Group Standard 2017 HSR002573 Fire Fighting Chemicals Group Standard 2017 HSR100425 Pharmaceutical Active Ingredients Group Standard 2017 HSR002600 Leather and Textile Products (Subsidiary Hazard) Group Standard 2017 HSR002571 Fertilisers (Subsidiary Hazard) Group Standard 2017 HSR002563 Refining Catalysts Group Standard 2017 HSR002648 Refining Catalysts Group Standard 2017 HSR002544 Construction Products (Subsidiary Hazard) Group Standard 2017 HSR002549 Corrosion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR00757 Veterinary Medicine (Limited Pack Size, Finished Dose) Standard 2017 HSR100758 Veterinary Medicines (Non-dispersive Closed System Application) Group Standard 2017 HSR100759 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100580 Tattoo and Permanent Makeup Substances Group Standard 2017 HSR002612 Metal Industry Products (Subsidiary Hazard) Group Standard 2017 HSR002503 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017	HSR002670	Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017
HSR002578 Food Additives and Fragrance Materials (Subsidiary Hazard) Group Standard 2017 HSR002584 Dental Products (Subsidiary Hazard) Group Standard 2017 HSR002573 Fire Fighting Chemicals Group Standard 2017 HSR100425 Pharmaceutical Active Ingredients Group Standard 2017 HSR002600 Leather and Textile Products (Subsidiary Hazard) Group Standard 2017 HSR002571 Fertilisers (Subsidiary Hazard) Group Standard 2017 HSR002571 Fertilisers (Subsidiary Hazard) Group Standard 2017 HSR002648 Refining Catalysts Group Standard 2017 HSR002653 Solvents (Subsidiary Hazard) Group Standard 2017 HSR002544 Construction Products (Subsidiary Hazard) Group Standard 2017 HSR002549 Corrosion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR100757 Veterinary Medicine (Limited Pack Size, Finished Dose) Standard 2017 HSR100758 Veterinary Medicines (Non-dispersive Closed System Application) Group Standard 2017 HSR100500 Tattoo and Permanent Makeup Substances Group Standard 2017 HSR100580 Tattoo and Permanent Makeup Substances Group Standard 2017 HSR002612 Metal Industry Products (Subsidiary Hazard) Group Standard 2017 HSR002503 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017	HSR002638	Photographic Chemicals (Subsidiary Hazard) Group Standard 2017
HSR002558 Dental Products (Subsidiary Hazard) Group Standard 2017 HSR002684 Water Treatment Chemicals (Subsidiary Hazard) Group Standard 2017 HSR002573 Fire Fighting Chemicals Group Standard 2017 HSR100425 Pharmaceutical Active Ingredients Group Standard 2017 HSR002600 Leather and Textile Products (Subsidiary Hazard) Group Standard 2017 HSR002571 Fertilisers (Subsidiary Hazard) Group Standard 2017 HSR002648 Refining Catalysts Group Standard 2017 HSR002648 Refining Catalysts Group Standard 2017 HSR002653 Solvents (Subsidiary Hazard) Group Standard 2017 HSR002544 Construction Products (Subsidiary Hazard) Group Standard 2017 HSR002549 Corrosion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR100757 Veterinary Medicine (Limited Pack Size, Finished Dose) Standard 2017 HSR100758 Veterinary Medicines (Non-dispersive Closed System Application) Group Standard 2017 HSR100759 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100580 Tattoo and Permanent Makeup Substances Group Standard 2017 HSR002612 Metal Industry Products (Subsidiary Hazard) Group Standard 2017 HSR002503 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017	HSR002565	Embalming Products (Subsidiary Hazard) Group Standard 2017
HSR002684 Water Treatment Chemicals (Subsidiary Hazard) Group Standard 2017 HSR002573 Fire Fighting Chemicals Group Standard 2017 HSR100425 Pharmaceutical Active Ingredients Group Standard 2017 HSR002600 Leather and Textile Products (Subsidiary Hazard) Group Standard 2017 HSR002571 Fertilisers (Subsidiary Hazard) Group Standard 2017 HSR002648 Refining Catalysts Group Standard 2017 HSR002653 Solvents (Subsidiary Hazard) Group Standard 2017 HSR002544 Construction Products (Subsidiary Hazard) Group Standard 2017 HSR002549 Corrosion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR100757 Veterinary Medicine (Limited Pack Size, Finished Dose) Standard 2017 HSR100758 Veterinary Medicines (Non-dispersive Closed System Application) Group Standard 2017 HSR100759 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100580 Tattoo and Permanent Makeup Substances Group Standard 2017 HSR002612 Metal Industry Products (Subsidiary Hazard) Group Standard 2017 HSR002503 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017	HSR002578	Food Additives and Fragrance Materials (Subsidiary Hazard) Group Standard 2017
HSR002573 Fire Fighting Chemicals Group Standard 2017 HSR100425 Pharmaceutical Active Ingredients Group Standard 2017 HSR002600 Leather and Textile Products (Subsidiary Hazard) Group Standard 2017 HSR002571 Fertilisers (Subsidiary Hazard) Group Standard 2017 HSR002648 Refining Catalysts Group Standard 2017 HSR002653 Solvents (Subsidiary Hazard) Group Standard 2017 HSR002544 Construction Products (Subsidiary Hazard) Group Standard 2017 HSR002549 Corrosion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR100757 Veterinary Medicines (Limited Pack Size, Finished Dose) Standard 2017 HSR100758 Veterinary Medicines (Non-dispersive Closed System Application) Group Standard 2017 HSR100759 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100580 Tattoo and Permanent Makeup Substances Group Standard 2017 HSR002612 Metal Industry Products (Subsidiary Hazard) Group Standard 2017 HSR002503 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017	HSR002558	Dental Products (Subsidiary Hazard) Group Standard 2017
HSR100425 Pharmaceutical Active Ingredients Group Standard 2017 HSR002600 Leather and Textile Products (Subsidiary Hazard) Group Standard 2017 HSR002571 Fertilisers (Subsidiary Hazard) Group Standard 2017 HSR002648 Refining Catalysts Group Standard 2017 HSR002653 Solvents (Subsidiary Hazard) Group Standard 2017 HSR002544 Construction Products (Subsidiary Hazard) Group Standard 2017 HSR002549 Corrosion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR100757 Veterinary Medicine (Limited Pack Size, Finished Dose) Standard 2017 HSR100758 Veterinary Medicines (Non-dispersive Closed System Application) Group Standard 2017 HSR100759 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100580 Tattoo and Permanent Makeup Substances Group Standard 2017 HSR002612 Metal Industry Products (Subsidiary Hazard) Group Standard 2017 HSR002503 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017	HSR002684	Water Treatment Chemicals (Subsidiary Hazard) Group Standard 2017
HSR002600 Leather and Textile Products (Subsidiary Hazard) Group Standard 2017 HSR002571 Fertilisers (Subsidiary Hazard) Group Standard 2017 HSR002648 Refining Catalysts Group Standard 2017 HSR002653 Solvents (Subsidiary Hazard) Group Standard 2017 HSR002544 Construction Products (Subsidiary Hazard) Group Standard 2017 HSR002549 Corrosion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR100757 Veterinary Medicine (Limited Pack Size, Finished Dose) Standard 2017 HSR100758 Veterinary Medicines (Non-dispersive Closed System Application) Group Standard 2017 HSR100759 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100580 Tattoo and Permanent Makeup Substances Group Standard 2017 HSR002612 Metal Industry Products (Subsidiary Hazard) Group Standard 2017 HSR002503 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017	HSR002573	Fire Fighting Chemicals Group Standard 2017
HSR002571 Fertilisers (Subsidiary Hazard) Group Standard 2017 HSR002648 Refining Catalysts Group Standard 2017 HSR002653 Solvents (Subsidiary Hazard) Group Standard 2017 HSR002544 Construction Products (Subsidiary Hazard) Group Standard 2017 HSR002549 Corrosion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR100757 Veterinary Medicine (Limited Pack Size, Finished Dose) Standard 2017 HSR100758 Veterinary Medicines (Non-dispersive Closed System Application) Group Standard 2017 HSR100759 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100580 Tattoo and Permanent Makeup Substances Group Standard 2017 HSR002612 Metal Industry Products (Subsidiary Hazard) Group Standard 2017 HSR002503 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017	HSR100425	Pharmaceutical Active Ingredients Group Standard 2017
HSR002648 Refining Catalysts Group Standard 2017 HSR002653 Solvents (Subsidiary Hazard) Group Standard 2017 HSR002544 Construction Products (Subsidiary Hazard) Group Standard 2017 HSR002549 Corrosion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR100757 Veterinary Medicine (Limited Pack Size, Finished Dose) Standard 2017 HSR100758 Veterinary Medicines (Non-dispersive Closed System Application) Group Standard 2017 HSR100759 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100580 Tattoo and Permanent Makeup Substances Group Standard 2017 HSR002612 Metal Industry Products (Subsidiary Hazard) Group Standard 2017 HSR002503 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017	HSR002600	Leather and Textile Products (Subsidiary Hazard) Group Standard 2017
HSR002653 Solvents (Subsidiary Hazard) Group Standard 2017 HSR002544 Construction Products (Subsidiary Hazard) Group Standard 2017 HSR002549 Corrosion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR100757 Veterinary Medicine (Limited Pack Size, Finished Dose) Standard 2017 HSR100758 Veterinary Medicines (Non-dispersive Closed System Application) Group Standard 2017 HSR100759 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100580 Tattoo and Permanent Makeup Substances Group Standard 2017 HSR002612 Metal Industry Products (Subsidiary Hazard) Group Standard 2017 HSR002503 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017	HSR002571	Fertilisers (Subsidiary Hazard) Group Standard 2017
HSR002544 Construction Products (Subsidiary Hazard) Group Standard 2017 HSR002549 Corrosion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR100757 Veterinary Medicine (Limited Pack Size, Finished Dose) Standard 2017 HSR100758 Veterinary Medicines (Non-dispersive Closed System Application) Group Standard 2017 HSR100759 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100580 Tattoo and Permanent Makeup Substances Group Standard 2017 HSR002612 Metal Industry Products (Subsidiary Hazard) Group Standard 2017 HSR002503 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017	HSR002648	Refining Catalysts Group Standard 2017
HSR002549 Corrosion Inhibitors (Subsidiary Hazard) Group Standard 2017 HSR100757 Veterinary Medicine (Limited Pack Size, Finished Dose) Standard 2017 HSR100758 Veterinary Medicines (Non-dispersive Closed System Application) Group Standard 2017 HSR100759 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100580 Tattoo and Permanent Makeup Substances Group Standard 2017 HSR002612 Metal Industry Products (Subsidiary Hazard) Group Standard 2017 HSR002503 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017	HSR002653	Solvents (Subsidiary Hazard) Group Standard 2017
HSR100757 Veterinary Medicine (Limited Pack Size, Finished Dose) Standard 2017 HSR100758 Veterinary Medicines (Non-dispersive Closed System Application) Group Standard 2017 HSR100759 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100580 Tattoo and Permanent Makeup Substances Group Standard 2017 HSR002612 Metal Industry Products (Subsidiary Hazard) Group Standard 2017 HSR002503 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017	HSR002544	Construction Products (Subsidiary Hazard) Group Standard 2017
HSR100758 Veterinary Medicines (Non-dispersive Closed System Application) Group Standard 2017 HSR100759 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100580 Tattoo and Permanent Makeup Substances Group Standard 2017 HSR002612 Metal Industry Products (Subsidiary Hazard) Group Standard 2017 HSR002503 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017	HSR002549	Corrosion Inhibitors (Subsidiary Hazard) Group Standard 2017
HSR100759 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017 HSR100580 Tattoo and Permanent Makeup Substances Group Standard 2017 HSR002612 Metal Industry Products (Subsidiary Hazard) Group Standard 2017 HSR002503 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017	HSR100757	Veterinary Medicine (Limited Pack Size, Finished Dose) Standard 2017
HSR100580 Tattoo and Permanent Makeup Substances Group Standard 2017 HSR002612 Metal Industry Products (Subsidiary Hazard) Group Standard 2017 HSR002503 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017	HSR100758	Veterinary Medicines (Non-dispersive Closed System Application) Group Standard 2017
HSR002612 Metal Industry Products (Subsidiary Hazard) Group Standard 2017 HSR002503 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017	HSR100759	Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017
HSR002503 Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017	HSR100580	Tattoo and Permanent Makeup Substances Group Standard 2017
	HSR002612	Metal Industry Products (Subsidiary Hazard) Group Standard 2017
HSR002552 Cosmetic Products Group Standard 2017	HSR002503	Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017
	HSR002552	Cosmetic Products Group Standard 2017

2,2,4-TRIMETHYL-1,3-PENTANEDIOL DIISOBUTYRATE IS FOUND ON THE FOLLOWING REGULATORY LISTS

New Zealand Approved Hazardous Substances with controls

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

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

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Inventory of Chemicals (NZIoC)

POLYPROPYLENE GLYCOL GLYCERYL ETHER IS FOUND ON THE FOLLOWING REGULATORY LISTS

New Zealand Approved Hazardous Substances with controls

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

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

New Zealand Inventory of Chemicals (NZIoC)

Hazardous Substance Location

Subject to the Health and Safety at Work (Hazardous Substances) Regulations 2017.

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	

Certified Handler

Subject to Part 4 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Class of substance	Quantities
Not Applicable	Not Applicable

Refer Group Standards for further information

Tracking Requirements

Not Applicable

National Inventory Status

National Inventory	Status	
Australia - AICS	Yes	
Canada - DSL	Yes	
Canada - NDSL	No (2,2,4-trimethyl-1,3-pentanediol diisobutyrate; sucrose, propoxylated; polypropylene glycol glyceryl ether)	
China - IECSC	Yes	
Europe - EINEC / ELINCS / NLP	Yes	
Japan - ENCS	Yes	
Korea - KECI	Yes	
New Zealand - NZIoC	Yes	
Philippines - PICCS	Yes	
USA - TSCA	Yes	
Taiwan - TCSI	Yes	
Mexico - INSQ	No (sucrose, propoxylated; polypropylene glycol glyceryl ether)	
Vietnam - NCI	Yes	
Russia - ARIPS	No (sucrose, propoxylated)	
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)	

SECTION 16 OTHER INFORMATION

Revision Date	01/11/2019
Initial Date	11/01/2017

SDS Version Summary

Version	Issue Date	Sections Updated
2.1.1.1	11/01/2017	Acute Health (skin), Classification, Storage (storage requirement)
3.1.1.1	01/11/2019	One-off system update. NOTE: This may or may not change the GHS classification

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. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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

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