# Mirotone

Chemwatch: 5073-33Issue Date: 01/11/2019Version No: 11.1Print Date: 15/02/2022Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirementsL.GHS.AUS.EN.RISK.E

#### SECTION 1 Identification of the substance / mixture and of the company / undertaking

### **Product Identifier**

Product name	NET EDGE EXTENDER 3320	
Chemical Name	ot Applicable	
Synonyms	t Available	
Proper shipping name	STERS, N.O.S. (contains propylene glycol monoethyl ether acetate - alpha isomer)	
Chemical formula	ot Applicable	
Other means of identification	Not Available	

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

Relevant identified uses	The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing. Before starting consider control of exposure by mechanical ventilation.	
	Use according to manufacturer's directions.	

#### Details of the supplier of the safety data sheet

Registered company name	Mirotone		
Address	21 Marigold Street Revesby NSW 2212 Australia		
Telephone	61 2 9795 3700		
Fax	+61 2 9771 3601		
Website	www.mirotone.com, www.polycure.com.au		
Email	Not Available		

#### **Emergency telephone number**

Association / Organisation	CHEMWATCH EMERGENCY RESPONSE	
Emergency telephone numbers	+61 1800 951 288	
Other emergency telephone numbers	+61 2 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

# HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

Poisons Schedule	Not Applicable		
Classification <sup>[1]</sup>	Serious Eye Damage/Eye Irritation Category 2B, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, Flammable Liquids Category 3		
	*LIMITED EVIDENCE		
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/200 Annex VI		

Hazard pictogram(s)		
Signal word	Warning	

#### Hazard statement(s)

H320	Causes eye irritation.	
H336	May cause drowsiness or dizziness.	
H226	Flammable liquid and vapour.	

#### \*LIMITED EVIDENCE

### Precautionary statement(s) General

P101	If medical advice is needed, have product container or label at hand.	
P102	Keep out of reach of children.	
P103	Read carefully and follow all instructions.	

# Precautionary statement(s) Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.		
P271	Use only outdoors or in a well-ventilated area.		
P240	Ground and bond container and receiving equipment.		
P241	Use explosion-proof electrical/ventilating/lighting/intrinsically safe equipment.		
P242	Use non-sparking tools.		

## Precautionary statement(s) Response

P370+P378	In case of fire: Use alcohol resistant foam or normal protein foam to extinguish.		
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.		
P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.		
P337+P313	If eye irritation persists: Get medical advice/attention.		
P303+P361+P353	2353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].		

#### 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 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
54839-24-6	>60	propylene glycol monoethyl ether acetate - alpha isomer
Not Available	balance	Ingredients determined not to be hazardous
Legend:	I. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 -         Annex VI; 4. Classification drawn from C&L * EU IOELVs available	

#### **SECTION 4 First aid measures**

## Description of first aid measures

Eye Contact	<ul> <li>If this product comes in contact with the eyes:</li> <li>Wash out immediately with fresh running water.</li> <li>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.</li> <li>Seek medical attention without delay; if pain persists or recurs seek medical attention.</li> <li>Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
Skin Contact	<ul> <li>If skin contact occurs:</li> <li>Immediately remove all contaminated clothing, including footwear.</li> <li>Flush skin and hair with running water (and soap if available).</li> <li>Seek medical attention in event of irritation.</li> </ul>
Inhalation	<ul> <li>If fumes or combustion products are inhaled remove from contaminated area.</li> <li>Lay patient down. Keep warm and rested.</li> <li>Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>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.</li> <li>Transport to hospital, or doctor.</li> </ul>
Ingestion	<ul> <li>If swallowed do NOT induce vomiting.</li> <li>If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>Observe the patient carefully.</li> <li>Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> <li>Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li> <li>Seek medical advice.</li> </ul>

#### Indication of any immediate medical attention and special treatment needed

Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours. Treat symptomatically.

for simple esters:

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.
- $\ensuremath{^{\bullet}}$  Monitor and treat, where necessary, for pulmonary oedema .
- Monitor and treat, where necessary, for shock.
- DO NOT use emetics. Where ingestion is suspected rinse mouth and give up to 200 ml water (5 ml/kg recommended) for dilution where patient is able to swallow, has a strong gag reflex and does not drool.
- Give activated charcoal.

# ADVANCED TREATMENT

- -----
- + Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory arrest has occurred.
- Positive-pressure ventilation using a bag-valve mask might be of use.
- Monitor and treat, where necessary, for arrhythmias.
- Start an IV D5W TKO. If signs of hypovolaemia are present use lactated Ringers solution. Fluid overload might create complications.
- 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.

#### EMERGENCY DEPARTMENT

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Laboratory analysis of complete blood count, serum electrolytes, BUN, creatinine, glucose, urinalysis, baseline for serum aminotransferases (ALT and AST), calcium, phosphorus and magnesium, may assist in establishing a treatment regime. Other useful analyses include anion and osmolar gaps, arterial blood gases (ABGs), chest radiographs and electrocardiograph.

Positive end-expiratory pressure (PEEP)-assisted ventilation may be required for acute parenchymal injury or adult respiratory distress syndrome.

Consult a toxicologist as necessary.

BRONSTEIN, A.C. and CURRANCE, P.L. EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994

#### **SECTION 5 Firefighting measures**

## Extinguishing media

- Alcohol stable foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog Large fires only.

Do not use a water jet to fight fire.

# Special hazards arising from the substrate or mixture

Fire Incompatibility result
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# Advice for firefighters

Fire Fighting	<ul> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>May be violently or explosively reactive.</li> <li>Wear breathing apparatus plus protective gloves.</li> <li>Prevent, by any means available, spillage from entering drains or water course.</li> <li>If safe, switch off electrical equipment until vapour fire hazard removed.</li> </ul>
Fire/Explosion Hazard	<ul> <li>Liquid and vapour are flammable.</li> <li>Moderate fire hazard when exposed to heat or flame.</li> <li>Vapour forms an explosive mixture with air.</li> <li>Moderate explosion hazard when exposed to heat or flame.</li> <li>Vapour may travel a considerable distance to source of ignition.</li> <li>Combustion products include:</li> <li>carbon dioxide (CO2)</li> <li>other pyrolysis products typical of burning organic material.</li> <li>Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.</li> </ul>
HAZCHEM	•3Y

# **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	<ul> <li>Remove all ignition sources.</li> <li>Clean up all spills immediately.</li> <li>Avoid breathing vapours and contact with skin and eyes.</li> <li>Control personal contact with the substance, by using protective equipment.</li> <li>Contain and absorb small quantities with vermiculite or other absorbent material.</li> </ul>					
	Chemical Class: ester and ethers For release onto land: recommended sorbents listed in order of priority.					
	SORBENT TYPE RANK APP	PLICATION	COLL	ECTION	LIMITATIONS	
	LAND SPILL - SMALL					
	cross-linked polymer - particu	ulate 1	shovel	shovel	R, W, SS	
	cross-linked polymer - pillow	1	throw	pitchfork	R, DGC, RT	
Major Spills	sorbent clay - particulate	2	shovel	shovel	R,I, P	
	wood fiber - particulate	3	shovel	shovel	R, W, P, DGC	
	wood fiber - pillow	3	throw	pitchfork	R, P, DGC, RT	
	treated wood fiber - pillow	3	throw	pitchfork	DGC, RT	
	LAND SPILL - MEDIUM					
	cross-linked polymer - particu	ulate 1	blower	skiploade	er R,W, SS	
	cross-linked polymer - pillow	2	throw	skiploade	er R, DGC, RT	
	sorbent clay - particulate	3	blower	skiploade	er R, I, P	-
	polypropylene - particulate	3	blower	skiploade	er W, SS, DGC	

expanded mineral - particulate	4	blower	skiploader	R, I, W, P, DGC
wood fiber - particulate	4	blower	skiploader	R, W, P, DGC
Legend				
DGC: Not effective where ground cov	/er is	dense		
R; Not reusable				
I: Not incinerable				
P: Effectiveness reduced when rainy				
RT:Not effective where terrain is rugg	ed			
SS: Not for use within environmental	y sen	sitive sites		
W: Effectiveness reduced when wind	у			
Reference: Sorbents for Liquid Haza	Reference: Sorbents for Liquid Hazardous Substance Cleanup and Control;			
R.W Melvold et al: Pollution Technolo	ogy Ro	eview No.	150: Noyes Da	ta Corporation 1988
Clear area of personnel and mov	e upw	/ind.		
Alert Fire Brigade and tell them lo	ocatio	n and natu	re of hazard.	
May be violently or explosively re	active	э.		
Wear breathing apparatus plus plus	rotect	ive gloves.		
Prevent, by any means available	spilla	age from e	ntering drains o	or water course.

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

# **SECTION 7 Handling and storage**

# Precautions for safe handling

Safe handling	<ul> <li>Containers, even those that have been emptied, may contain explosive vapours.</li> <li>Do NOT cut, drill, grind, weld or perform similar operations on or near containers.</li> <li>Contains low boiling substance:</li> <li>Storage in sealed containers may result in pressure buildup causing violent rupture of containers not rated appropriately.</li> <li>Check for bulging containers.</li> <li>Vent periodically</li> <li>Always release caps or seals slowly to ensure slow dissipation of vapours</li> <li>Avoid all personal contact, including inhalation.</li> <li>Wear protective clothing when risk of overexposure occurs.</li> <li>Use in a well-ventilated area.</li> <li>Prevent concentration in hollows and sumps.</li> <li>DO NOT enter confined spaces until atmosphere has been checked.</li> <li>DO NOT allow clothing wet with material to stay in contact with skin</li> </ul>
Other information	<ul> <li>Store in original containers in approved flammable liquid storage area.</li> <li>Store away from incompatible materials in a cool, dry, well-ventilated area.</li> <li>DO NOT store in pits, depressions, basements or areas where vapours may be trapped.</li> <li>No smoking, naked lights, heat or ignition sources.</li> <li>Storage areas should be clearly identified, well illuminated, clear of obstruction and accessible only to trained and authorised personnel - adequate security must be provided so that unauthorised personnel do not have access.</li> </ul>

# Conditions for safe storage, including any incompatibilities

Suitable container	<ul> <li>Packing as supplied by manufacturer.</li> <li>Plastic containers may only be used if approved for flammable liquid.</li> <li>Check that containers are clearly labelled and free from leaks.</li> <li>For low viscosity materials (i) : Drums and jerry cans must be of the non-removable head type. (ii) : Where a can is to be used as an inner package, the can must have a screwed enclosure.</li> <li>For materials with a viscosity of at least 2680 cSt. (23 deg. C)</li> <li>For manufactured product having a viscosity of at least 250 cSt. (23 deg. C)</li> <li>Manufactured product that requires stirring before use and having a viscosity of at least 20 cSt (25 deg. C): (i) Removable head packaging; (ii) Cans with friction closures and (iii) low pressure tubes and cartridges may be used.</li> </ul>
Storage incompatibility	<ul> <li>Esters react with acids to liberate heat along with alcohols and acids.</li> <li>Strong oxidising acids may cause a vigorous reaction with esters that is sufficiently exothermic to ignite the reaction products.</li> <li>Heat is also generated by the interaction of esters with caustic solutions.</li> <li>Flammable hydrogen is generated by mixing esters with alkali metals and hydrides.</li> <li>Esters may be incompatible with aliphatic amines and nitrates.</li> </ul>

# **SECTION 8 Exposure controls / personal protection**

# **Control parameters**

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Not Available

Emergency Limits

Ingredient	TEEL-1	TEEL-2		TEEL-3
WET EDGE EXTENDER 3320	Not Available	Not Available		Not Available
Ingredient	Original IDLH		Revised IDLH	
propylene glycol monoethyl ether acetate - alpha isomer	Not Available		Not Available	

#### MATERIAL DATA

Sensory irritants are chemicals that produce temporary and undesirable side-effects on the eyes, nose or throat. Historically occupational exposure standards for these irritants have been based on observation of workers' responses to various airborne concentrations. Present day expectations require that nearly every individual should be protected against even minor sensory irritation and exposure standards are established using uncertainty factors or safety factors of 5 to 10 or more. On occasion animal no-observable-effect-levels (NOEL) are used to determine these limits where human results are unavailable. An additional approach, typically used by the TLV committee (USA) in determining respiratory standards for this group of chemicals, has been to assign ceiling values (TLV C) to rapidly acting irritants and to assign short-term exposure limits (TLV STELs) when the weight of evidence from irritation, bioaccumulation and other endpoints combine to warrant such a limit.

#### **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. Ventilation can remove or dilute an air contaminant if designed properly.
Personal protection	
Eye and face protection	<ul> <li>Safety glasses with side shields.</li> <li>Chemical goggles.</li> <li>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. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience.</li> </ul>
Skin protection	See Hand protection below
Hands/feet protection	<ul> <li>Wear chemical protective gloves, e.g. PVC.</li> <li>Wear safety footwear or safety gumboots, e.g. Rubber</li> <li>For esters:</li> <li>Do NOT use natural rubber, butyl rubber, EPDM or polystyrene-containing materials.</li> <li>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.</li> <li>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.</li> <li>Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands.</li> </ul>
Body protection	See Other protection below
Other protection	<ul> <li>Overalls.</li> <li>PVC Apron.</li> <li>PVC protective suit may be required if exposure severe.</li> <li>Eyewash unit.</li> <li>Ensure there is ready access to a safety shower.</li> <li>Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity.</li> <li>For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets).</li> <li>Non sparking safety or conductive footwear should be considered. Conductive footwear describes a boot or shoe with a sole made from a conductive compound chemically bound to the bottom components, for permanent control to electrically ground the foot an shall dissipate static electricity from the body to reduce the possibility of ignition of volatile compounds. Electrical resistance must range between 0 to 500,000 ohms.</li> </ul>

#### **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	Clear colourless flammable liquid with a mild ester odour; partially miscible with water.		
Physical state	Liquid	Relative density (Water = 1)	0.94
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	325
pH (as supplied)	Not Applicable	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	158	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	54	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Flammable.	Oxidising properties	Not Available
Upper Explosive Limit (%)	9.8	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	1.0	Volatile Component (%vol)	100
Vapour pressure (kPa)	Negligible	Gas group	Not Available
Solubility in water	Partly miscible	pH as a solution (Not Available%)	Not Applicable
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

#### **SECTION 10 Stability and reactivity**

Reactivity	See section 7
Chemical stability	<ul> <li>Unstable in the presence of incompatible materials.</li> <li>Product is considered stable.</li> <li>Hazardous polymerisation will not occur.</li> </ul>
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	<ul> <li>Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo.</li> <li>Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.</li> <li>Limited evidence or practical experience suggests that the material may produce irritation of the respiratory system, in a significant number of individuals, following inhalation. In contrast to most organs, the lung is able to respond to a chemical insult by first removing or neutralising the irritant and then repairing the damage. The repair process, which initially evolved to protect mammalian lungs from foreign matter and antigens, may however, produce further lung damage resulting in the impairment of gas exchange, the primary function of the lungs. Respiratory tract irritation often results in an inflammatory response involving the recruitment and activation of many cell types, mainly derived from the vascular system.</li> <li>The main effects of simple aliphatic esters are narcosis and irritation and anaesthesia at higher concentrations. These effects become greater as the molecular weights and boiling points increase. Central nervous system depression , headache, drowsiness, dizziness, coma and neurobehavioral changes may also be symptomatic of overexposure. Respiratory tract involvement may produce mucous membrane irritation, dyspnea, and tachypnea, pharyngitis, bronchitis, pneumonitis and, in massive exposures, pulmonary oedema (which may be delayed). Gastrointestinal effects include nausea, vomiting, diarrhoea and abdominal cramps.</li> <li>Inhalation hazard is increased at higher temperatures.</li> <li>Acute effects from inhalation of high concentrations of vapour are pulmonary irritation, including coughing, with nausea; central nervous system depression - characterised by headache and dizziness, increased reaction time, fatigue and loss of co-ordin</li></ul>
Ingestion	Swallowing of the liquid may cause aspiration of vomit into the lungs with the risk of haemorrhaging, pulmonary oedema, progressing to chemical pneumonitis; serious consequences may result. Signs and symptoms of chemical (aspiration) pneumonitis may include coughing, gasping, choking, burning of the mouth, difficult breathing, and bluish coloured skin (cyanosis). Accidental ingestion of the material may be damaging to the health of the individual.
	Repeated exposure may cause skin cracking, flaking or drying following normal handling and use.
Skin Contact	Limited evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis. Open cuts, abraded or irritated skin should not be exposed to this material
Eye	Limited evidence exists, or practical experience suggests, that the material may cause eye irritation in a substantial number of individuals and/or is expected to produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.
Chronic	Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. Studies with some glycol ethers (principally the monoethylene glycols) and their esters indicate reproductive changes, testicular atrophy, infertility and kidney function changes. The metabolic acetic acid derivatives of glycol ethers (alkoxyacetic acids), not the ether itself, have been found to be the proximal reproductive toxin in animals. The potency of these metabolites decreases significantly as the chain length of the ether increases. Consequently glycol ethers with longer substituents (e.g diethylene glycols, triethylene glycols) have not generally been associated with reproductive effects. One of the most sensitive indicators of toxic effects observed from many of the glycol ethers is an increase in the erythrocytic osmotic fragility in rats Which produces haemolytic anaemia).

WET EDGE EXTENDER	TOXICITY	IRRITATION
3320	Not Available	Not Available
	ΤΟΧΙΟΙΤΥ	IRRITATION
propylene glycol monoethyl ether acetate - alpha isomer	Dermal (rabbit) LD50: 12628.22 mg/kg <sup>[1]</sup>	Eye: Slight
	Inhalation(Rat) LC50; >6.99 mg/l4h <sup>[1]</sup>	Skin: Slight [BP Chemicals]*
	Oral (Rat) LD50; >5000 mg/kg <sup>[2]</sup>	

1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.\* Value obtained from manufacturer's SDS.

	Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances
	for propylene glycol ethers (PGEs): Typical propylene glycol ethers include propylene glycol n-butyl ether (PnB); dipropylene glycol n-butyl ether (DPnB); dipropylene
PROPYLENE GLYCOL MONOETHYL ETHER ACETATE - ALPHA ISOMER	glycol methyl ether acetate (DPMA); tripropylene glycol methyl ether (TPM). Testing of a wide variety of propylene glycol ethers Testing of a wide variety of propylene glycol ethers has shown that propylene
	glycol-based ethers are less toxic than some ethers of the ethylene series. The common toxicities associated with the lower molecular weight homologues of the ethylene series, such as adverse effects on reproductive organs, the developing embryo and fetus, blood (haemolytic effects), or thymus, are not seen with the commercial-grade propylene glycol ethers. In the ethylene series, metabolism of the terminal hydroxyl group produces an alkoxyacetic acid. The reproductive and developmental toxicities of the lower molecular weight homologues in the ethylene series are due specifically to the formation of methoxyacetic and ethoxyacetic acids.
	Longer chain length homologues in the ethylene series are not associated with the reproductive toxicity but can cause haemolysis in sensitive species, also through formation of an alkoxyacetic acid. The predominant alpha isomer of all the PGEs
	(thermodynamically favored during manufacture of PGEs) is a secondary alcohol incapable of forming an alkoxypropionic acid.

Acute Toxicity	×	Carcinogenicity	×
Skin Irritation/Corrosion	×	Reproductivity	×
Serious Eye Damage/Irritation	~	STOT - Single Exposure	•
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	×
Mutagenicity	×	Aspiration Hazard	×
I exercises $I$ – Data either not available or does not fill the criteria for classification			

# **SECTION 12 Ecological information**

#### Toxicity

Not Available Endpoint	Not Available Test Duration (hr)	Not Available	Not Available	Not Available
Endpoint	Test Duration (hr)	Species	Value	
			value	Source
EC50	48h	Crustacea	96130mg/l	1
NOEC(ECx)	48h	Crustacea	32mg/l	1
LC50	96h	Fish	140mg/l	2
EC50	72h	Algae or other aquatic plants	>100mg/l	2
Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) -				
) 5) 4. Bi	NOEC(ECx) LC50 EC50 ktracted from US EPA, Eco oconcentratio.	NOEC(ECx)       48h         LC50       96h         EC50       72h         ktracted from 1. IUCLID Toxicity Data 2. Europe         US EPA, Ecotox database - Aquatic Toxicity Data oconcentration Data 7. METI (Japan) - Bioconcentration	NOEC(ECx)       48h       Crustacea         LC50       96h       Fish         EC50       72h       Algae or other aquatic plants         ktracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicologic       US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data oconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data	NOEC(ECx)       48h       Crustacea       32mg/l         LC50       96h       Fish       140mg/l         EC50       72h       Algae or other aquatic plants       >100mg/l         extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic 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

For glycol ethers:

Environmental fate:

Ether groups are generally stable to hydrolysis in water under neutral conditions and ambient temperatures. OECD guideline studies indicate ready biodegradability for several glycol ethers although higher molecular weight species seem to biodegrade at a slower rate. No glycol ethers that have been tested demonstrate marked resistance to biodegradative processes. Upon release to the atmosphere by evaporation, high boiling glycol ethers are estimated to undergo photodegradation (atmospheric half lives = 2.4-2.5 hr). When released to water, glycol ethers undergo biodegradation (typically 47-92% after 8-21 days) and have a low potential for bioaccumulation (log Kow ranges from -1.73 to +0.51).

 $\ensuremath{\text{DO NOT}}$  discharge into sewer or waterways.

# Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
propylene glycol monoethyl ether acetate - alpha isomer	LOW	LOW

# **Bioaccumulative potential**

Ingredient	Bioaccumulation
propylene glycol monoethyl ether acetate - alpha isomer	LOW (LogKOW = 1.0074)

# Mobility in soil

Ingredient	Mobility
propylene glycol monoethyl ether acetate - alpha isomer	LOW (KOC = 10)

# **SECTION 13 Disposal considerations**

Waste treatment methods	S
Product / Packaging disposal	<ul> <li>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.</li> <li>A Hierarchy of Controls seems to be common - the user should investigate: <ul> <li>Reduction</li> <li>Reuse</li> <li>Recycling</li> <li>Disposal (if all else fails)</li> </ul> </li> <li>This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means.</li> <li>DO NOT allow wash water from cleaning or process equipment to enter drains.</li> <li>It may be necessary to collect all wash water for treatment before disposal.</li> <li>In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>Where in doubt contact the responsible authority.</li> <li>Recycle wherever possible.</li> <li>Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.</li> <li>Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material).</li> <li>Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.</li> </ul>

# **SECTION 14 Transport information**

# Labels Required

Marine Pollutant	NO
HAZCHEM	•3Y

# Land transport (ADG)

UN number	3272	3272		
UN proper shipping name	ESTERS, N	ESTERS, N.O.S. (contains propylene glycol monoethyl ether acetate - alpha isomer)		
Transport hazard class(es)	Class     3       Subrisk     Not Applicable			
Packing group	ш	III		
Environmental hazard	Not Applicable			
Special precautions for user	Special pro	ovisions iantity	223 274 5 L	

# Air transport (ICAO-IATA / DGR)

UN number	3272		
UN proper shipping name	Esters, n.o.s. * (contains propylene glycol monoethyl ether acetate - alpha isomer)		
Transport hazard class(es)	ICAO/IATA Class	3 Not Applicable	
	ERG Code	3L	

Packing group	Ш		
Environmental hazard	Not Applicable		
Special precautions for user	Special provisions	A3	
	Cargo Only Packing Instructions	366	
	Cargo Only Maximum Qty / Pack	220 L	
	Passenger and Cargo Packing Instructions	355	
	Passenger and Cargo Maximum Qty / Pack	60 L	
	Passenger and Cargo Limited Quantity Packing Instructions		
	Passenger and Cargo Limited Maximum Qty / Pack	10 L	

# Sea transport (IMDG-Code / GGVSee)

UN number	3272		
UN proper shipping name	ESTERS, N.O.S. (contains propylene glycol monoethyl ether acetate - alpha isomer)		
Transport hazard class(es)	IMDG Class 3 IMDG Subrisk N	lot Applicable	
Packing group	III		
Environmental hazard	Not Applicable		
Special precautions for user	EMS Number Special provisions Limited Quantities	F-E , S-D 223 274 5 L	

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

Not Applicable

## Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
propylene glycol monoethyl ether acetate - alpha isomer	Not Available

#### Transport in bulk in accordance with the ICG Code

Product name	Ship Type
propylene glycol monoethyl ether acetate - alpha isomer	Not Available

#### **SECTION 15 Regulatory information**

# Safety, health and environmental regulations / legislation specific for the substance or mixture

# propylene glycol monoethyl ether acetate - alpha isomer is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous	Australian Inventory of Industrial Chemicals (AIIC)	
Chemicals		

# **National Inventory Status**

National Inventory	Status		
Australia - AIIC / Australia Non-Industrial Use	Yes		
Canada - DSL	No (propylene glycol monoethyl ether acetate - alpha isomer)		
Canada - NDSL	No (propylene glycol monoethyl ether acetate - alpha isomer)		
China - IECSC	Yes		
Europe - EINEC / ELINCS / NLP	Yes		
Japan - ENCS	Yes		
Korea - KECI	Yes		

National Inventory	Status
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	No (propylene glycol monoethyl ether acetate - alpha isomer)
Taiwan - TCSI	Yes
Mexico - INSQ	No (propylene glycol monoethyl ether acetate - alpha isomer)
Vietnam - NCI	Yes
Russia - FBEPH	Yes
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

#### **SECTION 16 Other information**

Revision Date	01/11/2019
Initial Date	01/12/2005

#### **SDS Version Summary**

Version	Date of Update	Sections Updated
10.1	19/08/2016	Ingredients
11.1	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.

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