

; HG': j`a g	Chemwatch Hazard Alert Code: 1
Version No: 1.1	Issue Date: 13/09/2016
Safety Data Sheet according to WHS and ADG requirements	Print Date: 13/09/2016
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### SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

#### **Product Identifier**

Product name	Ultra Tac
Synonyms	Not Available
Other means of identification	T752

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

Relevant identified uses For use in preparation of surfaces to allow adhesion of vinyl used in signwriting and window tinting films.

## Details of the supplier of the safety data sheet

Registered company name	GTS Films Pty Ltd
Address	Unit 9/24 Anzac Avenue Smeaton Grange NSW Australia
Telephone	(02) 4647 9199
Fax	(02) 4647 9167
Website	www.gtsfilms.com.au
Email	sales@gtsfilms.com.au

#### Emergency telephone number

Association / Organisation	GTS Films
Emergency telephone numbers	(02) 4647 9199
Other emergency telephone numbers	Poisons Information Centre 13 11 26

### SECTION 2 HAZARDS IDENTIFICATION

#### Classification of the substance or mixture

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

### CHEMWATCH HAZARD RATINGS

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

Poisons Schedule	Not Applicable
Classification <sup>[1]</sup>	Not Applicable

#### Label elements

GHS label elements	Not Applicable
	NOT APPLICABLE

### Hazard statement(s)

Not Applicable

### Precautionary statement(s) Prevention

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read label before use.

### Precautionary statement(s) Response

Not Applicable

## Precautionary statement(s) Storage

Not Applicable

## Precautionary statement(s) Disposal

Not Applicable

### SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

### Substances

See section below for composition of Mixtures

#### Mixtures

CAS No	%[weight]	Name
57-55-6	10-30	propylene glycol
9016-45-9	<1	nonylphenol, ethoxylated
25322-68-3	<1	polyethylene glycol

### 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	If skin contact occurs: <ul> <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, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>Other measures are usually unnecessary.</li> </ul>
Ingestion	<ul> <li>Immediately give a glass of water.</li> <li>First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.</li> </ul>

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

Treat symptomatically.

### SECTION 5 FIREFIGHTING MEASURES

### Extinguishing media

- Water spray or fog.
- 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	<ul> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear full body protective clothing with breathing apparatus.</li> <li>Prevent, by any means available, spillage from entering drains or water course.</li> <li>Use water delivered as a fine spray to control fire and cool adjacent area.</li> <li>Avoid spraying water onto liquid pools.</li> <li>DO NOT approach containers suspected to be hot.</li> <li>Cool fire exposed containers with water spray from a protected location.</li> <li>If safe to do so, remove containers from path of fire.</li> </ul>

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Fire/Explosion Hazard	<ul> <li>Combustible.</li> <li>Slight fire hazard when exposed to heat or flame.</li> <li>Heating may cause expansion or decomposition leading to violent rupture of containers.</li> <li>On combustion, may emit toxic fumes of carbon monoxide (CO).</li> <li>May emit acrid smoke.</li> <li>Mists containing combustible materials may be explosive.</li> <li>Combustion products include; carbon dioxide (CO2) other pyrolysis products typical of burning organic materialMay emit corrosive fumes.</li> </ul>
HAZCHEM	Not Applicable

### 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 spill with sand, earth, inert material or vermiculite.</li> <li>Wipe up.</li> <li>Place in a suitable, labelled container for waste disposal.</li> </ul>
Major Spills	<ul> <li>Moderate hazard.</li> <li>Clear area of personnel and move upwind.</li> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear breathing apparatus plus protective gloves.</li> <li>Prevent, by any means available, spillage from entering drains or water course.</li> <li>No smoking, naked lights or ignition sources.</li> <li>Increase ventilation.</li> <li>Stop leak if safe to do so.</li> <li>Contain spill with sand, earth or vermiculite.</li> <li>Collect recoverable product with sand, earth or vermiculite.</li> <li>Collect solid residues and seal in labelled drums for disposal.</li> <li>Wash area and prevent runoff into drains.</li> <li>If contamination of drains or waterways occurs, advise emergency services.</li> </ul>

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>Avoid all personal contact, including inhalation.</li> <li>Wear protective clothing when risk of exposure 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>Avoid smoking, naked lights or ignition sources.</li> <li>Avoid contact with incompatible materials.</li> <li>When handling, DO NOT eat, drink or smoke.</li> <li>Keep containers securely sealed when not in use.</li> <li>Avoid physical damage to containers.</li> <li>Always wash hands with scap and water after handling.</li> <li>Work clothes should be laundered separately.</li> <li>Use good occupational work practice.</li> <li>Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.</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.</li> <li>Keep containers securely sealed.</li> <li>No smoking, naked lights or ignition sources.</li> <li>Store in a cool, dry, well-ventilated area.</li> <li>Store away from incompatible materials and foodstuff containers.</li> <li>Protect containers against physical damage and check regularly for leaks.</li> <li>Observe manufacturer's storage and handling recommendations contained within this SDS.</li> </ul>

### Conditions for safe storage, including any incompatibilities

Suitable container	<ul> <li>Packaging as recommended by manufacturer (HDPE).</li> <li>Check all containers are clearly labelled and free from leaks.</li> </ul>
Storage incompatibility	<ul> <li>Glycols and their ethers undergo violent decomposition in contact with 70% perchloric acid. This seems likely to involve formation of the glycol perchlorate esters (after scission of ethers) which are explosive, those of ethylene glycol and 3-chloro-1,2-propanediol being more powerful than glyceryl nitrate, and the former so sensitive that it explodes on addition of water.</li> <li>Alcohols</li> <li>are incompatible with strong acids, acid chlorides, acid anhydrides, oxidising and reducing agents.</li> <li>reacts, possibly violently, with alkaline metals and alkaline earth metals to produce hydrogen</li> <li>react with strong acids, strong caustics, aliphatic amines, isocyanates, acetaldehyde, benzoyl peroxide, chromic acid, chromium oxide, dialkylzincs,</li> </ul>

+ dichlorine oxide, ethylene oxide, hypochlorous acid, isopropyl chlorocarbonate, lithium tetrahydroaluminate, nitrogen dioxide, pentafluoroguanidine, phosphorus halides, phosphorus pentasulfide, tangerine oil, triethylaluminium, triisobutylaluminium

- ▶ should not be heated above 49 deg. C. when in contact with aluminium equipment

### SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

### **Control parameters**

### OCCUPATIONAL EXPOSURE LIMITS (OEL)

### INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	propylene	Propane-1,2-diol total: (vapour & particulates) / Propane-	474 mg/m3 / 10 mg/m3 /	Not	Not	Not
	glycol	1,2-diol: particulates only	150 ppm	Available	Available	Available

### EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3	
propylene glycol	Polypropylene glycols	30 mg/m3	80 mg/m3	480 mg/m3	
propylene glycol	Propylene glycol; (1,2-Propanediol)	Propylene glycol; (1,2-Propanediol)			7900 mg/m3
nonylphenol, ethoxylated	Glycols, polyethylene, mono(p-nonylphenyl) ether; (Nonoxynol-9)	Glycols, polyethylene, mono(p-nonylphenyl) ether; (Nonoxynol-9)			300 mg/m3
nonylphenol, ethoxylated	Ethoxylated nonylphenol; (Nonyl phenyl polyethylene glycol ether)	Ethoxylated nonylphenol; (Nonyl phenyl polyethylene glycol ether)			260 mg/m3
polyethylene glycol	Polyethylene glycol	Polyethylene glycol			18000 mg/m3
Ingredient	Original IDLH	Revised	IIDLH		
propylene glycol	Not Available	Not Avai	lable		
nonylphenol, ethoxylated	Not Available	Not Avai	lable		
polyethylene glycol	Not Available Not Available				

## MATERIAL DATA

for polyethylene glycols:

For powdered forms:

The polyethylene glycols are extremely low in oral toxicity, are not significantly irritating to the eyes or skin, and are not absorbed through the skin in toxic amounts. vapour pressures are extremely low and inhalation exposure is limited to mists. Based on experimental data and human experience, these substances do not present significant hazards to health in the workplace.

for propylene glycol:

Saturated vapour concentration @ 20 deg C.= 65.8 ppm, 204.6 mg/m3; i.e higher concentrations can only occur as aerosols or at higher temperatures. Odour Threshold: Practically odourless.

A small number of individuals show skin irritation or sensitisation from repeated or prolonged exposure to propylene glycol. A workplace environmental exposure limit (WEEL) has been established by AIHA and is thought to be protective against systemic effects.

### 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. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure. General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas.
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. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]</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>The selection of suitable gloves does not only depend on thematerial, but also on further marks of quality which vary from manufacturer tomanufacturer. Where the chemical is a preparation of several substances, theresistance of the glove material can not be calculated in advance and hastherefore to be checked prior to the application.</li> <li>The exact break through time for substances has to be obtainedfrom the manufacturer of the protective gloves and has to be observed whenmaking a final choice.</li> <li>Personal hygiene is a key element of effective hand care. Glovesmust only be worn on clean hands. After using gloves, hands should be washedand dried thoroughly. Application of a non-perfumed moisturizer is recommended.</li> <li>Suitability and durability of glove type is dependent on usage.Important factors in the selection of gloves include: frequency and duration of contact, chemical resistance of glove material,</li> </ul>

:	glove thickness and dexterity
	Select gloves tested to a relevant standard (e.g. Europe EN 374,US F739, AS/NZS 2161.1 or national equivalent).
	When prolonged or frequently repeated contact may occur, a glovewith a protection class of 5 or higher (breakthrough time greater than 240minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.
•	When only brief contact is expected, a glove with a protectionclass of 3 or higher (breakthrough time greater than 60 minutes according to EN374, AS/NZS 2161.10.1 or national equivalent) is recommended.
	Some glove polymer types are less affected by movement and thisshould be taken into account when considering gloves for long-term use.
	Contaminated gloves should be replaced.
	For general applications, gloves with a thickness typicallygreater than 0.35 mm, are recommended.
	It should be emphasised that glove thickness is not necessarily agood predictor of glove resistance to a specific chemical, as the permeationefficiency of the glove will be dependent on the exact composition of the glovematerial. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.
	Give thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers' technicaldata should always be taken into account to ensure selection of the mostappropriate glove for the task.
	Note: Depending on the activity being conducted, gloves of varyingthickness may be required for specific tasks. For example:
	Thinner gloves (down to 0.1 mm or less) may be required where ahigh degree of manual dexterity is needed. However, these gloves are onlylikely to give short duration protection and would normally be just for singleuse applications, then disposed of.
	Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion orpuncture potential Gloves must only be wom on clean hands. After using gloves, handsshould be washed and dried thoroughly. Application of a non-perfumedmoisturiser is recommended.
Body protection	See Other protection below
Other protection	<ul> <li>Overalls.</li> <li>P.V.C. apron.</li> <li>Barrier cream.</li> <li>Skin cleansing cream.</li> <li>Eye wash unit.</li> </ul>
Thermal hazards	Not Available

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

## Information on basic physical and chemical properties

Appearance	Clear Pale Green Liquid		
Physical state	Liquid	Relative density (Water = 1)	1.01 - 1.03
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	6 - 8	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 Available
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Non Flammable	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)	Not Available	Gas group	Not Available
Solubility in water (g/L)	Miscible	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	<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

	The material is not thought to produce adverse health effects on Nevertheless, good hygiene practice requires that exposure be	1 1	, , , , , , , , , , , , , , , , , , ,			
Ingestion	Ingestion of propylene glycol produced reversible central nervous system depression in humans following ingestion of 60 ml. Symptoms included increased heart-rate (tachycardia), excessive sweating (diaphoresis) and grand mal seizures in a 15 month child who ingested large doses (7.5 ml/day for 8 days) as an ingredient of vitamin preparation. Excessive repeated ingestions may cause hypoglycaemia (low levels of glucose in the blood stream) among susceptible individuals; this may result in muscular weakness, incoordination and mental confusion. Very high doses given during feeding studies to rats and dogs produce central nervous system depression (although one-third of that produced by ethanol), haemolysis and insignificant kidney changes. In humans propylene glycol is partly excreted unchanged in the urine and partly metabolised as lactic and pyruvic acid. Lactic acidosis may result. The material has <b>NOT</b> been classified by EC Directives or other classification systems as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.					
Skin Contact	Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. 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.					
Eye	ocular lesions which are present twenty-four hours or more after Repeated or prolonged eye contact may cause inflammation ch	Evidence exists, or practical experience predicts, that the material may cause eye irritation in a substantial number of individuals and/or may produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. 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	Long-term exposure to the product is not thought to produce ch nevertheless exposure by all routes should be minimised as a n		s classified by EC Directives using animal models);			
Ultra Tac	TOXICITY Not Available	IRRITATION Not Available				
propylene glycol	TOXICITY     IRRITATION       Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup> Eye (rabbit): 100 mg - mild       Oral (rat) LD50: 20000 mg/kg <sup>[2]</sup> Eye (rabbit): 500 mg/24h - mild       Skin(human):104 mg/3d Intermit Mod     Skin(human):500 mg/7days mild		i00 mg/24h - mild 104 mg/3d Intermit Mod			
	TOXICITY Dermal (rabbit) LD50: 2080 mg/kg <sup>[2]</sup> Oral (rat) LD50: 1310 mg/kg <sup>[2]</sup>		ATION abbit): 5 mg SEVERE suman): 15 mg/3D mild			
nonylphenol, ethoxylated			abbit): 500 mg mild			
nonylphenol, ethoxylated	Toxicity           Dermal (rabbit) LD50: >20440 mg/kg <sup>[2]</sup> Oral (rat) LD50: 600 mg/kg <sup>[2]</sup>	Skin (r IRRIT/ Eye (ra	abbit): 500 mg mild			
	TOXICITY Dermal (rabbit) LD50: >20440 mg/kg <sup>[2]</sup>	Skin (r IRRIT, Eye (ra Skin (r - Acute toxicity 2.* Value obtained	abbit): 500 mg mild ATION abbit): 500mg/24h - mild. abbit): 500mg/24h - mild.			
polyethylene glycol	TOXICITY         Dermal (rabbit) LD50: >20440 mg/kg <sup>[2]</sup> Oral (rat) LD50: 600 mg/kg <sup>[2]</sup> 1. Value obtained from Europe ECHA Registered Substances -	Skin (r      IRRIT      Eye (ra      Skin (r      Acute toxicity 2.* Value obtained      ubstances  ted exposure and may produce a dermis. Histologically there may b e quantities are required to cause ch requires extremely high intake ments, which contain at most 1 g/ cidental ingestion of large quantit as classified by the U. S. Food ar ating to the skin. Undiluted propyle tre is removed). Exposure to mists present no significant hazard in o ting to some individuals It is there	abbit): 500 mg mild ATION ATION Abbit): 500 mg/24h - mild. abbit): 500 mg/24h - mild. abbit): 500 mg/24h - mild. from manufacturer's SDS. Unless otherwise specified data from manufacturer's SDS. Unless otherwise specified data contact dermatitis (nonallergic). This form of dermatitis is ofte e intercellular oedema of the spongy layer (spongiosis) and perceptible health damage in humans. Serious toxicity over a relatively short period of time. It would be nearly g of PG. Cases of propylene glycol poisoning are usually ises by children. The potential for long-term oral toxicity is also d Drug Administration as 'generally recognized as safe' ene glycol is minimally irritating to the eye, and can produce may cause eye irritation, as well as upper respiratory tract dinary applications. However, limited human experience fore recommended that propylene glycol not be used in			
polyethylene glycol	TOXICITY         Dermal (rabbit) LD50: >20440 mg/kg <sup>[2]</sup> Oral (rat) LD50: 600 mg/kg <sup>[2]</sup> 1. Value obtained from Europe ECHA Registered Substances - extracted from RTECS - Register of Toxic Effect of chemical Sintracellular oedema of the epidermis.         The material may cause skin irritation after prolonged or repeat characterised by skin redness (erythema) and swelling the epiderintracellular oedema of the epidermis.         The acute oral toxicity of propylene glycol is very low, and large generally occurs only at plasma concentrations over 1 g/L, whice impossible to reach toxic levels by consuming foods or supplem related to either inappropriate intravenous administration or a clow. Because of its low chronic oral toxicity, propylene glycol was (GRAS) for use as a direct food additive.         Prolonged contact with propylene glycol is essentially non-irritas slight transient conjunctivitis (the eye recovers after the exposus irritation. Inhalation of the propylene glycol mists could be irrita applications where inhalation exposure or human eye contact with	Skin (r      IRRIT      Eye (ra      Skin (r      Acute toxicity 2.* Value obtained      ubstances  ted exposure and may produce a dermis. Histologically there may b e quantities are required to cause ch requires extremely high intake ments, which contain at most 1 g/ cidental ingestion of large quantit as classified by the U. S. Food ar ating to the skin. Undiluted propyle tre is removed). Exposure to mists present no significant hazard in o ting to some individuals It is there	abbit): 500 mg mild ATION ATION Abbit): 500 mg/24h - mild. abbit): 500 mg/24h - mild. abbit): 500 mg/24h - mild. from manufacturer's SDS. Unless otherwise specified data from manufacturer's SDS. Unless otherwise specified data contact dermatitis (nonallergic). This form of dermatitis is ofte e intercellular oedema of the spongy layer (spongiosis) and perceptible health damage in humans. Serious toxicity over a relatively short period of time. It would be nearly g of PG. Cases of propylene glycol poisoning are usually ises by children. The potential for long-term oral toxicity is also d Drug Administration as 'generally recognized as safe' ene glycol is minimally irritating to the eye, and can produce may cause eye irritation, as well as upper respiratory tract dinary applications. However, limited human experience fore recommended that propylene glycol not be used in			

Serious Eye Damage/Irritation	$\odot$	STOT - Single Exposure	$\otimes$
Respiratory or Skin sensitisation	0	STOT - Repeated Exposure	0
Mutagenicity	$\odot$	Aspiration Hazard	$\odot$
			<ul> <li>Data available but does not fill the criteria for classification</li> <li>Data required to make classification available</li> </ul>

S – Data Not Available to make classification

## SECTION 12 ECOLOGICAL INFORMATION

## Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
propylene glycol	LC50	96	Fish	710mg/L	4
propylene glycol	EC50	48	Crustacea	>1000mg/L	4
propylene glycol	EC50	96	Algae or other aquatic plants	10905.921mg/L	3
propylene glycol	EC50	384	Crustacea	311.145mg/L	3
propylene glycol	NOEC	168	Fish	98mg/L	4
nonylphenol, ethoxylated	LC50	96	Fish	1.3mg/L	4
nonylphenol, ethoxylated	EC50	48	Crustacea	12.2mg/L	4
nonylphenol, ethoxylated	EC50	96	Algae or other aquatic plants	12.0mg/L	4
nonylphenol, ethoxylated	EC50	120	Crustacea	0.15mg/L	4
nonylphenol, ethoxylated	NOEC	2400	Fish	0.035mg/L	4
polyethylene glycol	LC50	96	Fish	>1000mg/L	4
polyethylene glycol	EC50	96	Algae or other aquatic plants	20935.086mg/L	3
polyethylene glycol	EC50	Not Applicable	Algae or other aquatic plants	398.9135mg/L	2
polyethylene glycol	NOEC	72.	Algae or other aquatic plants	56.02036mg/L	2
Legend:	Aquatic Toxicity Data (E	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data			

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
propylene glycol	LOW	LOW
nonylphenol, ethoxylated	LOW	LOW
polyethylene glycol	LOW	LOW

## **Bioaccumulative potential**

Ingredient	Bioaccumulation
propylene glycol	LOW (BCF = 1)
nonylphenol, ethoxylated	LOW (BCF = 16)
polyethylene glycol	LOW (LogKOW = -1.1996)

### Mobility in soil

Ingredient	Mobility
propylene glycol	HIGH (KOC = 1)
nonylphenol, ethoxylated	LOW (KOC = 940)
polyethylene glycol	HIGH (KOC = 1)

### SECTION 13 DISPOSAL CONSIDERATIONS

#### Waste treatment methods

	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 Reuse
Product / Packaging disposal	<ul> <li>Recycling</li> <li>Disposal (if all else fails)</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. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.</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> </ul>

Where in doubt contact the responsible authority.
<ul> <li>Recycle wherever possible or consult manufacturer for recycling options.</li> </ul>
Consult State Land Waste Authority for disposal.
▶ Bury or incinerate residue at an approved site.
<ul> <li>Recycle containers if possible, or dispose of in an authorised landfill.</li> </ul>

## SECTION 14 TRANSPORT INFORMATION

#### Labels Required

•	
Marine Pollutant	NO
HAZCHEM	Not Applicable

### Land transport (ADG): 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

#### PROPYLENE GLYCOL(57-55-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards

Australia Hazardous Substances Information System - Consolidated Lists

### NONYLPHENOL, ETHOXYLATED(9016-45-9) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

#### POLYETHYLENE GLYCOL(25322-68-3) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

National Inventory	Status
Australia - AICS	Υ
Canada - DSL	Υ
Canada - NDSL	N (polyethylene glycol; propylene glycol)
China - IECSC	Υ
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	Y
Korea - KECI	Y
New Zealand - NZIoC	Υ
Philippines - PICCS	Y
USA - TSCA	Υ
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

Australia Inventory of Chemical Substances (AICS)

### **SECTION 16 OTHER INFORMATION**

#### Other information

#### Ingredients with multiple cas numbers

Name	CAS No
nonylphenol, ethoxylated	9016-45-9, 26027-38-3, 26571-11-9, 14409-72-4
polyethylene glycol	25322-68-3, 8038-37-7, 9081-95-2, 9085-02-3, 9085-03-4, 12676-74-3, 12770-93-3, 25104-58-9, 25609-81-8, 34802-42-1, 37361-15-2, 50809-04-6, 50809-59-1, 54510-95-1, 54847-64-2, 59763-40-5, 60894-12-4, 61840-14-0, 64441-68-5, 64640-28-4, 67411-64-7, 70926-57-7, 75285-02-8, 75285-03-9, 77986-38-0, 79964-26-4, 80341-53-3, 85399-22-0, 85945-29-5, 88077-80-9, 88747-22-2, 90597-70-9, 99264-61-6, 99333-89-8, 101677-86-5, 106186-24-7, 107502-63-6, 107529-96-4, 109550-27-8, 112384-37-9, 112895-21-3, 114323-93-2, 116549-90-7, 119219-06-6, 125223-68-9, 133573-31-6, 134919-43-0, 150872-82-5, 154394-38-4, 156948-19-5, 169046-53-1, 174460-08-3, 174460-09-4, 188364-77-4, 188924-03-0, 189154-62-9, 191743-71-2, 196696-84-1, 201163-43-1, 206357-86-0

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chernwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:

#### www.chemwatch.net

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.

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 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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