

Flavor West Manufacturing, LLC.

Version No: **1.1** Safety Data Sheet according to OSHA HazCom Standard (2012) requirements Chemwatch Hazard Alert Code: 2

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

## **Product Identifier**

Product name	FW-PCM N&A Peaches & Cream Flavor
Synonyms	Not Available
Other means of identification	Not Available

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

Relevant identified	Use according to manufacturer's directions.
uses	Use according to manufacturer's directions.

#### Details of the manufacturer/importer

Registered company name	Flavor West Manufacturing, LLC.
Address	29400 Hunco Way, Lake Elsinore CA 92530 United States
Telephone	(951) 893-5120
Fax	(714) 276-1621
Website	www.FlavorWest.com
Email	Flavor@FlavorWest.com

#### **Emergency telephone number**

Association / Organisation	Chemwatch
Emergency telephone numbers	see below
Other emergency telephone numbers	see below

#### CHEMWATCH EMERGENCY RESPONSE

Primary Number	Alternative Number 1	Alternative Number 2
877 715 9305	+612 9186 1132	Not Available

Once connected and if the message is not in your prefered language then please dial 01

Una vez conectado y si el mensaje no está en su idioma preferido, por favor marque 02

#### **SECTION 2 HAZARDS IDENTIFICATION**

Classification of the substance or mixture



GHS Classification Eye Irritation Category 2A, Flammable Liquid Category 4

#### Label elements

GHS label elements	
SIGNAL WORD	WARNING

#### Hazard statement(s)

H319	Causes serious eye irritation
H227	Combustible liquid

## Precautionary statement(s) Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

## Precautionary statement(s) Response

P370+P378	P370+P378 In case of fire: Use alcohol resistant foam or normal protein foam for extinction.	
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P337+P313	If eye irritation persists: Get medical advice/attention.	

## Precautionary statement(s) Storage

P403+P235	Store in a well-ventilated place. Keep cool.
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## Precautionary statement(s) Disposal

P501 Dispose of contents/container to authorised chemical landfill or if organic to high temperature incineration

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

#### Substances

See section below for composition of Mixtures

#### **Mixtures**

CAS No	%[weight]	Name
57-55-6	80-90	propylene glycol
56-81-5	1-5	glycerol
64-17-5	1-5	ethanol

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

## **SECTION 4 FIRST AID MEASURES**

Description of first aid measures		
Ey	ve 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> </ul>

	<ul> <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

- Polyethylene glycols are generally poorly absorbed orally and are mostly unchanged by the kidney.
- Dermal absorption can occur across damaged skin (e.g. through burns) leading to increased osmolality, anion gap metabolic acidosis, elevated calcium, low ionised calcium, CNS depression and renal failure.
- Treatment consists of supportive care.

[Ellenhorn and Barceloux: Medical Toxicology]

Propylene glycol is primarily a CNS depressant in large doses and may cause hypoglycaemia, lactic acidosis and seizures.

- The usual measures are supportive care and decontamination (Ipecac/ lavage/ activated charcoal/ cathartics), within 2 hours of exposure should suffice.
- Check the anion gap, arterial pH, renal function and glucose levels.

Ellenhorn and Barceloux: Medical Toxicology

#### **SECTION 5 FIREFIGHTING MEASURES**

#### Extinguishing media

· Carbon dioxide.		<ul> <li>Alcohol stable foam.</li> <li>Dry chemical powder.</li> <li>BCF (where regulations permit).</li> <li>Carbon dioxide.</li> </ul>
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#### Special hazards arising from the substrate or mixture

Fire Incompatibility	• Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may
Fire incompatibility	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> </ul>
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> </ul>

## SECTION 6 ACCIDENTAL RELEASE MEASURES

## Personal precautions, protective equipment and emergency procedures

	Remove all ignition sources.
Minor Spills    Clean up all spills immediately.	
	Avoid breathing vapours and contact with skin and eyes.

	Chemical Class: alcohols and glycols For release onto land: recommended sorbents listed in order of priority.								
	SORBENT TYPE	RANK	APPLICATION			COLLE	CTION	LIMITATIONS	
	LAND SPILL - SMAL	L	'						
	cross-linked polyme	r - particulate	e	1		shovel	shovel	R, W, SS	
	cross-linked polymer	- pillow		1		throw	pitchfork	R, DGC, RT	
	sorbent clay - particu	ulate		2		shovel	shovel	R,I, P	
	wood fiber - pillow			3		throw	pitchfork	R, P, DGC, RT	
	treated wood fiber - p	oillow		3		throw	pitchfork	DGC, RT	
	foamed glass - pillov	v		4		throw	pichfork	R, P, DGC, RT	
	LAND SPILL - MEDIUM								
	cross-linked polymer	r - particulate	1	1	b	lower	skiploader	R,W, SS	
Major Spills	polypropylene - particulate			2	b	blower skiploader		W, SS, DGC	
	sorbent clay - particulate				b	lower	skiploader	R, I, W, P, DGC	
	polypropylene - mat			3	th	nrow	skiploader	DGC, RT	
	expanded mineral - p	oarticulate		3	b	lower	skiploader	R, I, W, P, DGC	
	polyurethane - mat			4	th	nrow	skiploader	DGC, RT	
	Legend DGC: Not effective where ground cover is dense R; Not reusable I: Not incinerable P: Effectiveness reduced when rainy RT:Not effective where terrain is rugged SS: Not for use within environmentally sensitive sites W: Effectiveness reduced when windy Reference: Sorbents for Liquid Hazardous Substance Cleanup and Control; R.W Melvold et al: Pollution Technology Review No. 150: Noyes Data Corporation 1988 Moderate hazard.								
	2.22. a. ca c. poro			haza					

## SECTION 7 HANDLING AND STORAGE

## Precautions for safe handling

Safe handling	<ul> <li>DO NOT allow clothing wet with material to stay in contact with skin</li> <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> </ul>
Other information	<ul> <li>Material is hygroscopic, i.e. absorbs moisture from the air. Keep containers well sealed in storage.</li> <li>Store in original containers.</li> <li>Keep containers securely sealed.</li> </ul>

## Conditions for safe storage, including any incompatibilities

Suitable container	<ul> <li>Metal can or drum</li> <li>Packaging as recommended by manufacturer.</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         <ul> <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,</li> </ul> </li> </ul>

- chromium oxide, dialkylzincs, 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.

#### PACKAGE MATERIAL INCOMPATIBILITIES

Not Available

#### SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

#### **Control parameters**

#### OCCUPATIONAL EXPOSURE LIMITS (OEL)

#### INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US OSHA Permissible Exposure Levels (PELs) - Table Z1	glycerol	Glycerin / Glycerin - Respirable fraction	15 mg/m3 / 5 mg/m3	Not Available	Not Available	Total dust; (mist) / (mist)
US NIOSH Recommended Exposure Limits (RELs)	glycerol	Glycerin (anhydrous); Glycerol; Glycyl alcohol; 1,2,3-Propanetriol; Trihydroxypropane	Not Available	Not Available	Not Available	See Appendix D
US OSHA Permissible Exposure Levels (PELs) - Table Z1	ethanol	Ethyl alcohol (Ethanol)	1900 mg/m3 / 1000 ppm	Not Available	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	ethanol	Ethanol	Not Available	1000 ppm	Not Available	TLV® Basis: URT irr
US NIOSH Recommended Exposure Limits (RELs)	ethanol	Alcohol, Cologne spirit, Ethanol, EtOH, Grain alcohol	1900 mg/m3 / 1000 ppm	Not Available	Not Available	Not Available

#### EMERGENCY LIMITS

Ingredient	Material name		EL-1	TEEL-2	TEEL-3
propylene glycol	Propylene glycol; (1,2-Propanediol)	Propylene glycol; (1,2-Propanediol) 30		1300 mg/m3	7900 mg/m3
glycerol	Glycerine (mist); (Glycerol; Glycerin)	cerol; Glycerin) 30 m		310 mg/m3	2500 mg/m3
ethanol	Ethyl alcohol; (Ethanol)	Not Available		Not Available	Not Available
Ingredient	Original IDLH		Revised IDLH		
propylene glycol	Not Available		Not Available		
glycerol	Not Available		Not Available		
ethanol	15,000 ppm		3,300 [LEL] ppm		

#### MATERIAL DATA

For ethanol:

Odour Threshold Value: 49-716 ppm (detection), 101 ppm (recognition)

Eye and respiratory tract irritation do not appear to occur at exposure levels of less than 5000 ppm and the TLV-TWA is thought to provide an adequate margin of safety against such effects. Experiments in man show that inhalation of 1000 ppm caused slight symptoms of poisoning and 5000 ppm caused strong stupor and morbid sleepiness. Subjects exposed to 5000 ppm to 10000 ppm experienced smarting of the eyes and nose and coughing. Symptoms disappeared within minutes.

#### **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	<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.</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>NOTE:</li> <li>The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.</li> <li>Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.</li> </ul>
Body protection	See Other protection below
Other protection	<ul> <li>Overalls.</li> <li>P.V.C. apron.</li> <li>Barrier cream.</li> </ul>
Thermal hazards	Not Available

#### Recommended material(s)

#### **GLOVE SELECTION INDEX**

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the *computer-generated* selection:

FW-PCM N&A Peaches & Cream Flavor

Material	CPI
BUTYL	С
NATURAL RUBBER	С
NATURAL+NEOPRENE	С
NEOPRENE	С
NITRILE	С
NITRILE+PVC	С
PE/EVAL/PE	С
PVC	С

\* CPI - Chemwatch Performance Index

B: Satisfactory; may degrade after 4 hours continuous immersion C: Poor to Dangerous Choice for other than short term immersion **NOTE**: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -\* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

#### SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

#### Information on basic physical and chemical properties

#### Clear to light yellow Appearance **Relative density** 1 04 Physical state Liquid (Water = 1) Partition coefficient Characteristic Not Available Odour n-octanol / water Auto-ignition Not Available Not Available Odour threshold temperature (°C) Decomposition Not Available Not Available pH (as supplied) temperature Melting point / Not Available Viscosity (cSt) Not Available freezing point (°C)

#### **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)

A: Best Selection

Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	132.08	Taste	Creamy Peach
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Combustible.	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

## Information on toxicological effects

	logical chects		
Inhaled	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 narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo.		
	Ŭ	tion of the material may be damaging to the health of the individual. nol may produce nausea, vomiting, gastrointestinal bleeding, abdominal pain and diarrhoea. Systemic	
Ingestion	Blood concentration:	Effects:	
	<1.5 g/l	Mild: Impaired visual acuity, coordination and reaction time, emotional lability	
	1.5-3.0 g/l	Moderate: Slurred speech, confusion, ataxia, emotional lability, perceptual and sensation disturbances possible blackout spells, and incoordination with impaired objective performance in standardised tests. Possible diplopia, flushing, tachycardia, sweating and incontinence.	
Skin Contact	health damage for The material may produces more produces sign such inflamm Skin irritation may (nonallergic). The	ot thought to have harmful health effects (as classified under EC Directives); the material may still produce pollowing entry through wounds, lesions or abrasions. / produce moderate skin irritation; limited evidence or practical experience suggests, that the material either: polerate inflammation of the skin in a substantial number of individuals following direct contact and/or nificant, but moderate, inflammation when applied to the healthy intact skin of animals (for up to four hours), ation being present twenty-four hours or more after the end of the exposure period. ay also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis e dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to lation), scaling and thickening of the epidermis.	
Еуе	of individuals and instillation into th characterised by	exists, or practical experience suggests, that the material may cause eye irritation in a substantial number d/or is expected to produce significant ocular lesions which are present twenty-four hours or more after e eye(s) of experimental animals. Repeated or prolonged eye contact may cause inflammation temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision sient eye damage/ulceration may occur.	

	Direct contact of the eye with ethanol may cause immediate stinging and burning with reflex closure of the lid and tearing, transient injury of the corneal epithelium and hyperaemia of the conjunctiva. Foreign-body type discomfort may persist for up to 2 days but healing is usually spontaneous and complete.
Chronic	Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. There exists limited evidence that shows that skin contact with the material is capable either of inducing a sensitisation reaction in a significant number of individuals, and/or of producing positive response in experimental animals. Long-term exposure to ethanol may result in progressive liver damage with fibrosis or may exacerbate liver injury caused by other agents. Repeated ingestion of ethanol by pregnant women may adversely affect the central nervous system of the developing foetus, producing effects collectively described as foetal alcohol syndrome.

FW-PCM N&A	ΤΟΧΙΟΙΤΥ	IRRITATION			
Peaches &	Not Available	Not Available			
Cream Flavor					
	TOXICITY	IRRITATION			
	Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>	Eye (rabbit): 100 mg - mi	ild		
propylene glycol	Oral (rat) LD50: 20000 mg/kgd <sup>[2]</sup>	Eye (rabbit): 500 mg/24h	- mild		
		Skin(human):104 mg/3d I	Intermit Mod		
		Skin(human):500 mg/7da	ays mild		
	TOXICITY		IRRITATION		
glycerol	dermal (guinea pig) LD50: 54000 mg/kg <sup>[1]</sup>		Not Available		
	Oral (rat) LD50: >20<39800 mg/kg> <sup>[1]</sup>				
	ΤΟΧΙCΙΤΥ	IRRITATION			
	Dermal (rabbit) LD50: 17100 mg/kg <sup>[1]</sup>	Eye (rabbit): 500 mg S	SEVERE		
ethanol	Inhalation (rat) LC50: 64000 ppm/4h <sup>[2]</sup>	Eye (rabbit):100mg/24	e (rabbit):100mg/24hr-moderate		
	Oral (rat) LD50: >11872769 mg/kg <sup>[1]</sup>	Skin (rabbit):20 mg/24	abbit):20 mg/24hr-moderate		
		Skin (rabbit):400 mg (c	Skin (rabbit):400 mg (open)-mild		
Legend:	1. Value obtained from Europe ECHA Registered Sub Unless otherwise specified data extracted from RTEC	-			
FW-PCM N&A Peaches & Cream Flavor	The acute oral toxicity of propylene glycol is very lo damage in humans. Serious toxicity generally occu high intake over a relatively short period of time. It or supplements, which contain at most 1 g/kg of PC inappropriate intravenous administration or acciden oral toxicity is also low.	rrs only at plasma concentrations ove would be nearly impossible to reach G. Cases of propylene glycol poisoni	er 1 g/L, which requires extremely h toxic levels by consuming foods ing are usually related to either		
PROPYLENE GLYCOL	The material may cause skin irritation after prolong (nonallergic). This form of dermatitis is often chara Histologically there may be intercellular oedema of epidermis. The acute oral toxicity of propylene glycol is very lo damage in humans.	cterised by skin redness (erythema) the spongy layer (spongiosis) and ir	and swelling the epidermis. htracellular oedema of the		
GLYCEROL	Asthma-like symptoms may continue for months o to a non-allergenic condition known as reactive ain exposure to high levels of highly irritating compour preceding respiratory disease, in a non-atopic indiv minutes to hours of a documented exposure to the	ways dysfunction syndrome (RADS) nd. Key criteria for the diagnosis of R vidual, with abrupt onset of persistent	which can occur following ADS include the absence of t asthma-like symptoms within		

ETHANOL

The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling the epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the

of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic

inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS.

	epidermis.		
Acute Toxicity	0	Carcinogenicity	0
Skin Irritation/Corrosion	0	Reproductivity	0
Serious Eye Damage/Irritation	*	STOT - Single Exposure	0
Respiratory or Skin sensitisation	0	STOT - Repeated Exposure	0
Mutagenicity	0	Aspiration Hazard	0
		🗙 – Data ava	uired to make classification available ilable but does not fill the criteria for classification Available to make classification

## **CMR STATUS**

CARCINOGEN	ethanol US Environmental Defense Scorecard Suspected Carcinogens IARC HAZMAP, NTP-C
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## **SECTION 12 ECOLOGICAL INFORMATION**

#### Toxicity

#### NOT AVAILABLE

Ingredient	Endpoint	Test Duration	Effect	Value	Species	BCF
propylene glycol	Not Available					
glycerol	Not Available					
ethanol	Not Available					

When ethanol is released into the soil it readily and quickly biodegrades but may leach into ground water; most is lost by evaporation. When released into water the material readily evaporates and is biodegradable.

Ethanol does not bioaccumulate to an appreciable extent.

The material is readily degraded by reaction with photochemically produced hydroxy radicals; release into air will result in photodegradation and wet deposition.

## Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
propylene glycol	LOW	LOW
glycerol	LOW	LOW
ethanol	LOW (Half-life = 2.17 days)	LOW (Half-life = 5.08 days)

## **Bioaccumulative potential**

Ingredient	Bioaccumulation
propylene glycol	LOW (BCF = 1)
glycerol	LOW (LogKOW = -1.76)
ethanol	LOW (LogKOW = -0.31)

## Mobility in soil

Ingredient	Mobility
propylene glycol	HIGH (KOC = 1)
glycerol	HIGH (KOC = 1)
ethanol	HIGH (KOC = 1)

## SECTION 13 DISPOSAL CONSIDERATIONS

#### Waste treatment methods

Product / Packaging<br/>disposalLegislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to<br/>laws operating in their area. In some areas, certain wastes must be tracked.<br/>A Hierarchy of Controls seems to be common - the user should investigate:

Reduction

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.

#### **SECTION 14 TRANSPORT INFORMATION**

# Marine Pollutant NO

## Land transport (DOT): 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

## 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	"US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)", "US - Washington Toxic air pollutants and their ASIL, SQER and de minimis emission values", "US AIHA Workplace Environmental Exposure Levels (WEELs)", "US Spacecraft Maximum Allowable Concentrations (SMACs) for Airborne Contaminants", "US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory"
glycerol(56-81-5) is found on the following regulatory lists	"US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants", "US - Hawaii Air Contaminant Limits", "US - California Permissible Exposure Limits for Chemical Contaminants", "US - Idaho - Limits for Air Contaminants", "US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants", "US - Oregon Permissible Exposure Limits (Z-1)", "US - Michigan Exposure Limits for Air Contaminants", "US - Alaska Limits for Air Contaminants", "US NIOSH Recommended Exposure Limits (RELs)", "US - Washington Permissible exposure limits of air contaminants", "US - Minesota Permissible Exposure Limits (PELs)", "US - Vermont Permissible Exposure Limits for Air Contaminants", "US - Monesota Contaminants", "US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants", "US - Toxic Substances Control Act (TSCA) - Chemical Substance Inventory", "US OSHA Permissible Exposure Levels (PELs) - Table Z1"
ethanol(64-17-5) is found on the following regulatory lists	"US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants", "US - Hawaii Air Contaminant Limits", "US - California Permissible Exposure Limits for Chemical Contaminants", "US - Limits for Air Contaminants", "US ACGIH Threshold Limit Values (TLV) - Carcinogens", "US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants", "US - Oregon Permissible Exposure Limits (Z-1)", "US - Michigan Exposure Limits for Air Contaminants", "US - New Jersey Right to Know - Special Health Hazard Substance List (SHHSL): Mutagens", "US - Alaska Limits for Air Contaminants", "US NIOSH Recommended Exposure Limits (RELs)", "US - Washington Permissible exposure limits of air contaminants", "US Spacecraft Maximum Allowable Concentrations (SMACs) for Airborne Contaminants", "US - Minnesota Permissible Exposure Limits (PELs)", "US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants", "US ACGIH Threshold Limit Values (TLV)", "US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants", "US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory", "US OSHA Permissible Exposure Levels (PELs) - Table Z1", "US - New Jersey Right to Know - Special Health Hazard Substance List (SHHSL): Carcinogens"
National Inventory	Status
Australia - AICS	Υ
Canada - DSL	Υ
China JECSC	V

China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Υ
Japan - ENCS	Y
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

#### **SECTION 16 OTHER INFORMATION**

#### Other information

#### Ingredients with multiple cas numbers

Name	CAS No
glycerol	29796-42-7, 30049-52-6, 37228-54-9, 56-81-5, 75398-78-6, 78630-16-7, 8013-25-0

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.

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

www.chemwatch.net

The (M)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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