

Flavor West Manufacturing, LLC.

Version No: 1.1 Safety Data Sheet according OSHA HazCom Standard (2012) requirements Chemwatch Hazard Alert Code: 3

Issue Date: **12/10/2020** Print Date: **12/10/2020** L.GHS.USA.EN

SECTION 1 Identification

Product Identifier

Product name	FW-WHP N&A Whipped Cream Flavor	
Synonyms	Not Available	
Proper shipping name	Extracts, flavoring, liquid	
Other means of identification	Not Available	

Recommended use of the chemical and restrictions on use

Relevant identified uses Use according to manufacturer's directions	
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Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	Flavor West Manufacturing, LLC.	
Address	9400 Hunco Way, Lake Elsinore CA 92530 United States	
Telephone	51) 893-5120	
Fax	(714) 276-1621	
Website	www.FlavorWest.com	
Email	Flavor@FlavorWest.com	

Emergency phone number

Association / Organisation	Chemwatch	CHEMWATCH EMERGENCY RESPONSE
Emergency telephone numbers	see below	+61 2 9186 1132
Other emergency telephone numbers	see below	+1 855-237-5573

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 Hazard(s) identification

Classification of the substance or mixture

NFPA 704 diamond



Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances)

Classification Flammable Liquid Category 3, Eye Irritation Category 2A, Skin Corrosion/Irritation Category 2, Skin Sensitize	
l abel elements	

Label elements

Hazard pictogram(s)	
Signal word	Warning

Hazard statement(s)

H226	Flammable liquid and vapour.	
H319	Causes serious eye irritation.	
H315	Causes skin irritation.	
H317	May cause an allergic skin reaction.	

Hazard(s) not otherwise classified

Not Applicable

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	3 Read label before use.	

Precautionary statement(s) Prevention

P210	Keep away from heat/sparks/open flames/hot surfaces No smoking.	
P233	ceep container tightly closed.	
P280	Vear protective gloves/protective clothing/eye protection/face protection.	
P240	Ground/bond container and receiving equipment.	
P241	se explosion-proof electrical/ventilating/lighting/intrinsically safe equipment.	
P242	Use only non-sparking tools.	
P243	Take precautionary measures against static discharge.	
P261	Avoid breathing mist/vapours/spray.	
P272	Contaminated work clothing should not be allowed out of the workplace.	

Precautionary statement(s) Response

P321	Specific treatment (see advice on this label).	
P362	Take off contaminated clothing and wash before reuse.	
P370+P378	n case of fire: Use alcohol resistant foam or normal protein foam for extinction.	
P302+P352	F ON SKIN: Wash with plenty of water.	
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.	
P337+P313	If eye irritation persists: Get medical advice/attention.	
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.	

Precautionary statement(s) Storage

P403+P235	Store in a well-ventilated place. Keep cool.

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
57-55-6	70-60	propylene glycol
64-17-5	20-30	ethanol
56-81-5	1-10	glycerol

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

Eye Contact	 If this product comes in contact with the eyes: Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	 If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Inhalation	 If fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary.
Ingestion	 Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Most important symptoms and effects, both acute and delayed

See Section 11

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]

For acute or short term repeated exposures to ethanol:

- Acute ingestion in non-tolerant patients usually responds to supportive care with special attention to prevention of aspiration, replacement of fluid and correction of nutritional deficiencies (magnesium, thiamine pyridoxine, Vitamins C and K).
- Give 50% dextrose (50-100 ml) IV to obtunded patients following blood draw for glucose determination.
- Comatose patients should be treated with initial attention to airway, breathing, circulation and drugs of immediate importance (glucose, thiamine).
- Decontamination is probably unnecessary more than 1 hour after a single observed ingestion. Cathartics and charcoal may be given but are probably not
- effective in single ingestions.
- Fructose administration is contra-indicated due to side effects.

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 Fire-fighting measures

Extinguishing media

- Alcohol stable 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
The moompationity	result

Special protective equipment and precautions for fire-fighters

Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. May be violently or explosively reactive. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course.
Fire/Explosion Hazard	 Liquid and vapour are flammable. Moderate fire hazard when exposed to heat or flame. Vapour forms an explosive mixture with air. Moderate explosion hazard when exposed to heat or flame. Combustion products include: carbon monoxide (CO) carbon dioxide (CO2) other pyrolysis products typical of burning organic material.

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	 Remove all ignition sources. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. 					
	Chemical Class: alcohols and glyco For release onto land: recommended		orbents	isted in or	der of priority.	
	SORBENT TYPE RANK APPLICATIO	N	COLLE		IMITATIONS	
	LAND SPILL - SMALL					
	cross-linked polymer - particulate	1	shovel	shovel	R, W, SS	
	cross-linked polymer - pillow	1	throw	pitchfork	R, DGC, RT	
	sorbent clay - particulate	2	shovel	shovel	R,I, P	
	wood fiber - pillow	3	throw	pitchfork	R, P, DGC, RT	
	treated wood fiber - pillow		throw	pitchfork	· · · · · · · · · · · · · · · · · · ·	
	foamed glass - pillow		throw	pichfork	R, P, DGC, RT	
Major Spills	LAND SPILL - MEDIUM					
	cross-linked polymer - particulate	1	blower	skiploade	r R,W, SS	
	polypropylene - particulate	2	blower	skiploade	r W, SS, DGC	
	sorbent clay - particulate	2	blower	skiploade	r R, I, W, P, DGC	
	polypropylene - mat	3	throw	skiploade	er DGC, RT	
	expanded mineral - particulate	3	blower	skiploade	r R, I, W, P, DGC	
	polyurethane - mat	4	throw	skiploade	r 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					

FW-WHP	N&A	Whipped	Cream	Flavor
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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
Clear area of personnel and move upwind.
Alert Fire Brigade and tell them location and nature of hazard.
May be violently or explosively reactive.
Wear breathing apparatus plus protective gloves.

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

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling	 Containers, even those that have been emptied, may contain explosive vapours. Do NOT cut, drill, grind, weld or perform similar operations on or near containers. Avoid all personal contact, including inhalation. Wear protective clothing when risk of overexposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. DO NOT allow clothing wet with material to stay in contact with skin
Other information	 Consider storage under inert gas. Store in original containers in approved flammable liquid storage area. Store away from incompatible materials in a cool, dry, well-ventilated area. DO NOT store in pits, depressions, basements or areas where vapours may be trapped. No smoking, naked lights, heat or ignition sources. Material is hygroscopic, i.e. absorbs moisture from the air. Keep containers well sealed in storage.

Conditions for safe storage, including any incompatibilities

Suitable container	 Packing as supplied by manufacturer. Plastic containers may only be used if approved for flammable liquid. Check that containers are clearly labelled and free from leaks. 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. For materials with a viscosity of at least 2680 cSt. (23 deg. C) For manufactured product having a viscosity of at least 250 cSt.
Storage incompatibility	 Avoid oxidising agents, acids, acid chlorides, acid anhydrides, chloroformates. 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. Alcohols are incompatible with strong acids, acid chlorides, acid anhydrides, oxidising and reducing agents. reacts, possibly violently, with alkaline metals and alkaline earth metals to produce hydrogen react with strong acids, strong caustics, aliphatic amines, isocyanates, acetaldehyde, benzoyl peroxide, chromic acid, 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. 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
US NIOSH Recommended Exposure Limits (RELs)	ethanol	Alcohol, Cologne spirit, Ethanol, EtOH, Grain alcohol	1000 ppm / 1900 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Levels (PELs) - Table Z1	ethanol	Ethyl alcohol (Ethanol)	1000 ppm / 1900 mg/m3	Not Available	Not Available	Not Available

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US ACGIH Threshold Limit Values (TLV)	ethanol	Ethanol	Not Available	1000 ppm	Not Available	URT irr
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	glycerol	Glycerin (mist): Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Levels (PELs) - Table Z1	glycerol	Glycerin (mist): Total dust	15 mg/m3	Not Available	Not Available	Not Available

Emergency Limits

Ingredient	Material name	TEEL	-1	TEEL-2	TEEL-3		
propylene glycol	Polypropylene glycols	Polypropylene glycols 30 mg/m		330 mg/m3	2,000 mg/m3		
propylene glycol	Propylene glycol; (1,2-Propanediol)	30 m	g/m3	1,300 mg/m3	7,900 mg/m3		
ethanol	Ethanol: (Ethyl alcohol)	nol: (Ethyl alcohol) Not Available			15000* ppm		
glycerol	Glycerine (mist); (Glycerol; Glycerin)	; (Glycerol; Glycerin) 45 mg/m3		180 mg/m3	1,100 mg/m3		
Ingredient	Original IDLH	Original IDLH			Revised IDLH		
propylene glycol	Not Available	Not Available					
ethanol	3,300 ppm	3,300 ppm					
glycerol	Not Available	Not Available					

Occupational Exposure Banding

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

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.

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

Hands/feet protection	 Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber NOTE: 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. Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed. The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice. Personal hygiene is a key element of effective hand care.
Body protection	See Other protection below
Other protection	 Overalls. PVC Apron. PVC protective suit may be required if exposure severe. Eyewash unit. Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity. For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets). 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.

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-WHP N&A Whipped 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

A: Best Selection

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.

Respiratory protection

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

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.

Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	A-AUS	-	A-PAPR-AUS / Class 1
up to 50 x ES	-	A-AUS / Class 1	-
up to 100 x ES	-	A-2	A-PAPR-2 ^

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling 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 light amber

Continued...

Physical state	Liquid	Relative density (Water = 1)	0.99
Odour	Characteristic	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	30.6	Taste	Whipped cream
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	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	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	 Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 Toxicological information

Information on toxicological effects

	<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. 1.5-3.0 g/l Possible diplopia, flushing, tachycardia, sweating and incontinence. Bradypnoea may occur early and tachypnoea may develop in cases of metabollic acidosis, hypoglycaemia and hypokalaemia.
	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. The toxic effects of glycols (dihydric alcohols), following ingestion are similar to those of alcohol, with depression of the central nervous system (CNS), nausea, vomiting and degenerative changes in liver and kidney. Effects on the nervous system characterise over-exposure to higher aliphatic alcohols. These include headache, muscle weakness, giddiness, ataxia, (loss of muscle coordination), confusion, delirium and coma. Gastrointestinal effects may include nausea, vomiting and diarrhoea. In the absence of effective treatment, respiratory arrest is the most common cause of death in animals acutely poisoned by the higher alcohols. The material has NOT 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 mortality rather than those producing morbidity (disease, ill-health). Accidental ingestion of the material may be damaging to the health of the individual.
Skin Contact	The material may accentuate any pre-existing dermatitis condition 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. A single prolonged exposure is not likely to result in the material being absorbed in harmful amounts. However the material may be absorbed in potentially harmful amounts when applied in large quantities to severe burns (second or third degree) over large areas of the body as part of a cream, other topical application or by prolonged contact with clothing accidentally wetted by the material. Absorption under such circumstances can elevated serum osmolality and may result in osmotic shock. Most liquid alcohols appear to act as primary skin irritants in humans. Significant percutaneous absorption occurs in rabbits but not apparently in man. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected. The material produces moderate skin irritation; evidence exists, or practical experience predicts, that the material either • produces significant, but moderate, 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 o
Eye	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. Irritation of the eyes may produce a heavy secretion of tears (lachrymation). Evidence exists, or practical experience predicts, that the material may cause severe 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. Eye contact may cause significant inflammation with pain. Corneal injury may occur; permanent impairment of vision may result unless treatment is prompt and adequate. Repeated or prolonged exposure to irritants may cause inflammation characterised by a temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.
Chronic	Practical experience shows that skin contact with the material is capable either of inducing a sensitisation reaction in a substantial number of individuals, and/or of producing a positive response in experimental animals. There is sufficient evidence to provide a strong presumption that human exposure to the material may result in the development of heritable genetic damage, generally on the basis of - appropriate animal studies, - other relevant information Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. Serious damage (clear functional disturbance or morphological change which may have toxicological significance) is likely to be caused by repeated or prolonged exposure. As a rule the material produces, or contains a substance which produces severe lesions. Such damage may become apparent following direct application in subchronic (90 day) toxicity studies or following sub-acute (28 day) or chronic (two-year) toxicity tests. There is sufficient evidence to establish a causal relationship between human exposure to the material and impaired fertility

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. These include mental and physical retardation, learning disturbances, motor and language deficiency, behavioural disorders and reduced head size.

Consumption of ethanol (in alcoholic beverages) may be linked to the development of Type I hypersensitivities in a small number of individuals.

Propylene glycol is though, by some, to be a sensitising principal following the regular use of topical creams by eczema patients. A study of 866 persons using a formulation containing propylene glycol in a patch test indicated that propylene glycol caused primary irritation in 16% of exposed individuals probably caused by dehydration. Undiluted propylene glycol was tested on 1556 persons in a 24 hour patch test. 12.5% showed reactions which were largely toxic (70%) or allergic in nature (30%).

W-WHP N&A Whipped	ΤΟΧΙΟΙΤΥ	IRRITATION
Cream Flavor	Not Available	Not Available
	ΤΟΧΙCITY	IRRITATION
	Dermal (rabbit) LD50: 20800 mg/kg ^[2]	Eye (rabbit): 100 mg - mild
	Inhalation (rat) LC50: >44.9 mg/l/4H ^[2]	Eye (rabbit): 500 mg/24h - mild
	Oral (dog) LD50: =20000 mg/kg ^[2]	Eye: no adverse effect observed (not irritating) ^[1]
propylene glycol	Oral (mouse) LD50: =22000 mg/kg ^[2]	Skin(human):104 mg/3d Intermit Mod
	Oral (mouse) LD50: =23900 mg/kg ^[2]	Skin(human):500 mg/7days mild
	Oral (rabbit) LD50: =18000-19000 mg/kg ^[2]	Skin: no adverse effect observed (not irritating) ^[1]
	Oral (rabbit) LD50: =18500 mg/kg ^[2]	
	Oral (rat) LD50: 20000 mg/kg ^[2]	
	ΤΟΧΙΟΙΤΥ	IRRITATION
	1.40 mg/kg ^[2]	Eye (rabbit): 500 mg SEVERE
	1400 mg/kg ^[2]	Eye (rabbit):100mg/24hr-moderate
	4070 mg/kg ^[2]	Eye: adverse effect observed (irritating) ^[1]
	4070 mg/kg ^[2]	Skin (rabbit):20 mg/24hr-moderate
	5100 mg/kg ^[2]	Skin (rabbit):400 mg (open)-mild
	6030 mg/kg ^[2]	Skin: no adverse effect observed (not irritating) ^[1]
	6030 mg/kg ^[2]	
	6080 mg/kg ^[2]	
ethanol	6080 mg/kg ^[2]	
	9200 mg/kg ^[2]	
	9710 mg/kg ^[2]	
	Inhalation (rat) LC50: 0 mg/l/10h ^[2]	
	Inhalation (rat) LC50: 124.7 mg/l/4H ^[2]	
	Inhalation (rat) LC50: 63926.976 mg/l/4h ^[2]	
	mg/kg ^[2]	
	Oral (rat) LD50: =1501 mg/kg ^[2]	
	Oral (rat) LD50: 7060 mg/kg ^[2]	
	τοχιζιτγ	IRRITATION
	Oral (mouse) LD50: ~23000 mg/kg ^[2]	Not Available
alvoorel	Oral (mouse) LD50: ~26000 mg/kg ^[2]	
glycerol	Oral (rat) LD50: =12600 mg/kg ^[2]	
	Oral (rat) LD50: >10000 mg/kg ^[2]	
	Oral (rat) LD50: 27200 mg/kg ^[2]	
Legend:	1. Value obtained from Europe ECHA Registered Subsi	tances - Acute toxicity 2.* Value obtained from manufacturer's SD

The following information refers to contact allergens as a group and may not be specific to this product.

sensitisation Mutagenicity	* ×	STOT - Repeated Exposure Aspiration Hazard	×		
Serious Eye Damage/Irritation Respiratory or Skin	*	STOT - Single Exposure	×		
Skin Irritation/Corrosion	*	Reproductivity	×		
Acute Toxicity	×	Carcinogenicity	×		
PROPYLENE GLYCOL & ETHANOL	The material may cause skin irritation after prolong This form of dermatitis is often characterised by sk intercellular oedema of the spongy layer (spongios	in redness (erythema) and swell	ing the epidermis. Histologically there may b		
FW-WHP N&A Whipped Cream Flavor & PROPYLENE GLYCOL	The acute oral toxicity of propylene glycol is very low, and large quantities are required to cause perceptible health damage in humans. Serious toxicity generally occurs only at plasma concentrations over 1 g/L, which requires extremely high intake over a relatively short period of time. It would be nearly impossible to reach toxic levels by consuming foods or supplements, which contain at most 1 g/kg of PG. Cases of propylene glycol poisoning are usually related to either inappropriate intravenous administration or accidental ingestion of large quantities by children. The potential for long-term oral toxicity is also low.				
GLYCEROL	Asthma-like symptoms may continue for months or non-allergenic condition known as reactive airways levels of highly irritating compound. Key criteria for in a non-atopic individual, with abrupt onset of perse exposure to the irritant. A reversible airflow pattern hyperreactivity on methacholine challenge testing a also been included in the criteria for diagnosis of R For glycerol: Acute toxicity: Glycerol is of a low order of acute high dose levels, the signs of toxicity include tremo indicate that glycerol has low potential to irritate the very widespread potential for exposure and the abs sensitiser. Repeat dose toxicity: Repeated oral exposure to gastro-intestinal tract.	s dysfunction syndrome (RADS) the diagnosis of RADS include sistent asthma-like symptoms wit , on spirometry, with the presend and the lack of minimal lymphocy ADS. oral and dermal toxicity with LDS or and hyperaemia of the gastro- e skin and the eye. The available sence of case reports of sensitis	which can occur following exposure to high the absence of preceding respiratory diseas thin minutes to hours of a documented ce of moderate to severe bronchial ytic inflammation, without eosinophilia, have 50 values in excess of 4000 mg/kg bw. At ve intestinal -tract. Skin and eye irritation studie a human and animal data, together with the ation, indicate that glycerol is not a skin		
Cream Flavor	Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important.				

Legend: X – Data either not available or does not fill the criteria for classification

Data available to make classification

SECTION 12 Ecological information

Toxicity

	Endpoint	Test Duration (hr)		Species		Value	Source
FW-WHP N&A Whipped Cream Flavor	Not Available	Not Available		Not Available		Not Available	Not Available
	Endpoint	Test Duration (hr)		Species		Value	Source
	LC50	96		Fish		710-mg/L	4
propylene glycol	EC50	48		Crustacea		>110mg/L	4
	EC50	96		Algae or other aquatic plants		19000mg/L	2
	NOEC	168		Fish		98-mg/L	4
	Endpoint	Test Duration (hr)	SI	pecies	Value	;	Source
	LC50	96	Fi	sh	42-m	g/L	4
	EC50	48	Cı	rustacea	2-mg	/L	4
ethanol	EC50	96	AI	gae or other aquatic plants	-8.35	8-26.503mg/L	4
	EC10	168	AI	gae or other aquatic plants	1.91-	mg/L	4
	NOEC	2016	Fi	sh	0.000	375-mg/L	4

glycerol	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96	Fish	>11mg/L	2
	NOEL	48	Not Available	12ug/cm	4
Legend:	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - 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				

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. Propylene glycol is known to exert high levels of biochemical oxygen demand (BOD) during degradation in surface waters. This process can adversely affect aquatic life by consuming oxygen needed by aquatic organisms for survival. Large quantities of dissolved oxygen (DO) in the water column are consumed when microbial populations decompose propylene glycol.

Sufficient dissolved oxygen levels in surface waters are critical for the survival of fish, macro-invertebrates, and other aquatic organisms. **DO NOT** discharge into sewer or waterways.

Persistence and degradability

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

Bioaccumulative potential

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

Mobility in soil

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

SECTION 13 Disposal considerations

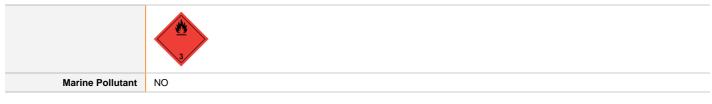
Waste treatment methods

Product / Packaging Where possible retain label warnings and SDS and observe all notices pertaining to the product. Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to 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 Recycling Disposal (if all else fails) 	•••	 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 Recycling Disposal (if all else fails) This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. DO NOT allow wash water from cleaning or process equipment to enter drains. It may be necessary to collect all wash water for treatment before disposal. In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
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 Recycle wherever possible. 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. 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). Decontaminate empty containers.

SECTION 14 Transport information

Labels Required



Land transport (DOT)

UN number	1197	1197		
UN proper shipping name	Extracts, flavoring, li	Extracts, flavoring, liquid		
Transport hazard class(es)	Class 3 Subrisk Not Ap			
Packing group	Ш	III		
Environmental hazard	Not Applicable			
Special precautions for user	Hazard Label3Special provisionsB1, IB3, T2, TP1			

Air transport (ICAO-IATA / DGR)

UN number	1197				
UN proper shipping name	Extracts, flavouring, liqu	Extracts, flavouring, liquid			
Transport hazard class(es)	ICAO/IATA Class	ss 3			
	ICAO / IATA Subrisk	Not Applicable			
	ERG Code	3L			
Packing group	III				
Environmental hazard	Not Applicable				
	Special provisions		A3		
	Cargo Only Packing Instructions		366		
Special precautions for user	Cargo Only Maximum Qty / Pack		220 L		
	Passenger and Cargo Packing Instructions		355		
u361	Passenger and Cargo Maximum Qty / Pack		60 L		
	Passenger and Cargo Limited Quantity Packing Instructions		Y344		
	Passenger and Cargo	Limited Maximum Qty / Pack	10 L		

Sea transport (IMDG-Code / GGVSee)

UN number	1197		
UN proper shipping name	EXTRACTS, FLAVOURING, LIQUID		
Transport hazard class(es)	IMDG Class3IMDG SubriskNot Applicable		
Packing group	III		
Environmental hazard	Not Applicable		

	EMS Number	F-E , S-D
Special precautions for user	Special provisions	223 955
4001	Limited Quantities	5 L

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

Not Applicable

SECTION 15 Regulatory information

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

propylene glycol is found on the following regulatory lists

US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)

US DOE Temporary Emergency Exposure Limits (TEELs)

US EPA Integrated Risk Information System (IRIS)

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US Toxicology Excellence for Risk Assessment (TERA) Workplace Environmental Exposure Levels (WEEL)

US TSCA Chemical Substance Inventory - Interim List of Active Substances

ethanol is found on the following regulatory lists

US ACGIH Threshold Limit Values (TLV)

- US ACGIH Threshold Limit Values (TLV) Carcinogens
- US AIHA Workplace Environmental Exposure Levels (WEELs)

US DOE Temporary Emergency Exposure Limits (TEELs)

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Levels (PELs) - Table Z1

US OSHA Permissible Exposure Limits - Annotated Table Z-1

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

glycerol is found on the following regulatory lists

US DOE Temporary Emergency Exposure Limits (TEELs)

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Levels (PELs) - Table Z1

US OSHA Permissible Exposure Limits - Annotated Table Z-1

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

Federal Regulations

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 311/312 hazard categories

Flammable (Gases, Aerosols, Liquids, or Solids)	Yes
Gas under pressure	No
Explosive	No
Self-heating	No
Pyrophoric (Liquid or Solid)	No
Pyrophoric Gas	No
Corrosive to metal	No
Oxidizer (Liquid, Solid or Gas)	No
Organic Peroxide	No
Self-reactive	No
In contact with water emits flammable gas	No
Combustible Dust	No
Carcinogenicity	No
Acute toxicity (any route of exposure)	No
Reproductive toxicity	No

Skin Corrosion or Irritation		
Respiratory or Skin Sensitization	Yes	
Serious eye damage or eye irritation	Yes	
Specific target organ toxicity (single or repeated exposure)	No	
Aspiration Hazard	No	
Germ cell mutagenicity	No	
Simple Asphyxiant	No	
Hazards Not Otherwise Classified		

US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

None Reported

State Regulations

US. California Proposition 65

None Reported

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
Canada - NDSL	No (propylene glycol; ethanol; glycerol)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	Yes
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	Yes
Vietnam - NCI	Yes
Russia - ARIPS	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 and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 Other information

Revision Date	12/10/2020
Initial Date	12/10/2020

Other information

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

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

PC-TWA: Permissible Concentration-Time Weighted Average

PC-STEL: Permissible Concentration-Short Term Exposure Limit

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit。

IDLH: Immediately Dangerous to Life or Health Concentrations OSF: Odour Safety Factor NOAEL :No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level TLV: Threshold Limit Value LOD: Limit Of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index

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