

Flavor West Manufacturing, LLC.

Version No: 1.1.0.1 Safety Data Sheet accordtog OSHA HazCom Standard (2012) requirements Chemwatch Hazard Alert Code: 4

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SECTION 1 Identification

Product Identifier

Product name	FW-CAC N&A Cookies & 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

Use according to manufacturer's directions.

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party 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 phone number

Relevant identified uses

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 Sensitizer Category 1

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	P102 Keep out of reach of children.	
P103	Read label before use.	

Precautionary statement(s) Prevention

P210	Keep away from heat/sparks/open flames/hot surfaces No smoking.
P233	Keep container tightly closed.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P240	Ground/bond container and receiving equipment.
P241	Use 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

P362	Take off contaminated clothing and wash before reuse.	
P370+P378	In case of fire: Use alcohol resistant foam or normal protein foam for extinction.	
P302+P352	IF 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

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
57-55-6	70-80	propylene glycol
64-17-5	5.97-6.7	ethanol
7732-18-5	1-10	water

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

Treat symptomatically.

- ▶ 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 Fire-fighting measures

Extinguishing media

- Alcohol stable foam.
- Dry chemical powder.
- BCF (where regulations permit).

Fire Incompatibility

Carbon dioxide.

Special hazards arising from the substrate or mixture

Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

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 glycols For release onto land: recommended sorbents listed in order of priority.								
	SORBENT TYPE	RANK	APPLICATIO	N COLLECTION L		LI	MITATIONS		
	LAND SPILL	- SMAL	L		-	-			
	cross-linked	polyme	r - particulate	1	shovel	shovel		R, W, SS	
	cross-linked	polyme	r - pillow	1	throw	pitchfo	rk	R, DGC, RT	
	sorbent clay	- partic	ulate	2	shovel	shovel		R,I, P	
	wood fiber - pillow			3	throw	pitchfo	rk	R, P, DGC, RT	
	treated wood fiber - pillow		3	throw	pitchfo	rk	DGC, RT		
	foamed glass - pillow		4	throw	pichfor	k	R, P, DGC, RT		
	LAND SPILL - MEDIUM								
	cross-linked polymer - particulate		1	blower	skiploa	der	R,W, SS	_	
Major Spills	polypropylene - particulate			2	blower	skiploa	der	W, SS, DGC	_
	sorbent clay - particulate			2	blower			R, I, W, P, DGC	
	polypropylene - mat			3	throw	skiploa	der	DGC, RT	_
	· · · ·			3	blower	skiploa			_
	polyurethane - mat			4	throw	skiploa	der	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								

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	 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 OSHA Permissible Exposure Limits (PELs) Table Z-1	ethanol	Ethyl alcohol (Ethanol)	1000 ppm / 1900 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	ethanol	Ethyl alcohol	1000 ppm / 1900 mg/m3	Not Available	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	ethanol	Ethanol	Not Available	1000 ppm	Not Available	A3

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
propylene glycol	30 mg/m3	330 mg/m3	2,000 mg/m3
propylene glycol	30 mg/m3	1,300 mg/m3	7,900 mg/m3
ethanol	Not Available	Not Available	15000* ppm

Original IDLH

Continued...

FW-CAC N&A Cookies & Cream Flavor

Ingredient	Original IDLH	Revised IDLH
propylene glycol	Not Available	Not Available
ethanol	3,300 ppm	Not Available
water	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	 Employees working with confirmed human carcinogens should be provided with, and be required to wear, clean, full body protective clothing (smocks, coveralls, or long-sleeved shirt and pants), shoe covers and gloves prior to entering the regulated area. [AS/NZS ISO 6529:2006 or national equivalent] Employees engaged in handling operations involving carcinogens should be provided with, and required to wear and use half-face filter-type respirators with filters for dusts, mists and fumes, or air purifying canisters or cartridges. A respirator affording higher levels of protection may be substituted. [AS/NZS 1715 or national equivalent] Emergency deluge showers and eyewash fountains, supplied with potable water, should be located near, within sight of, and on the same level with locations where direct exposure is likely.

- Prior to each exit from an area containing confirmed human carcinogens, employees should be required to remove and leave protective clothing and equipment at the point of exit and at the last exit of the day, to place used clothing and equipment in impervious containers at the point of exit for purposes of decontamination or disposal. The contents of such impervious containers must be identified with suitable labels. For maintenance and decontamination activities, authorized employees entering the area should be provided with and required to wear clean, impervious garments, including gloves, boots and continuous-air supplied hood.
 Prior to removing protective garments the employee should undergo decontamination and be required to shower upon removal of the garments and hood.
 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-CAC N&A Cookies & Cream Flavor

Material	СРІ
BUTYL	С
NATURAL RUBBER	С
NATURAL+NEOPRENE	С
NEOPRENE	С
NITRILE	С
NITRILE+PVC	С
PE/EVAL/PE	С
PVA	С
PVC	С
VITON	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.

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance Brown Physical state L iquid 1.03 Relative density (Water= 1) Partition coefficient Characteristic Not Available Odour n-octanol / water Auto-ignition temperature Odour threshold Not Available Not Available (°C) Decomposition pH (as supplied) Not Available Not Available temperature

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 5 x ES	Air-line*	A-2	A-PAPR-2 ^
up to 10 x ES	-	A-3	-
10+ x ES	-	Air-line**	-

* - Continuous Flow; ** - Continuous-flow or positive pressure demand ^ - 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

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)	50.6	Taste	Cookies & 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

Inhaled	using animal mod measures be use The most commo those surviving na Exposure to aliph dizziness, drowsii are more acute w respiratory depres involvement may Inhalation hazard Inhalation of vapo	ot thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives lels). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control d in an occupational setting. In signs of inhalation overexposure to ethanol, in animals, include ataxia, incoordination and drowsiness for arcosis. The narcotic dose for rats, after 2 hours of exposure, is 19260 ppm. atic alcohols with more than 3 carbons may produce central nervous system effects such as headache, ness, muscle weakness, delirium, CNS depression, coma, seizure, and neurobehavioural changes. Symptoms ith higher alcohols. Respiratory tract involvement may produce irritation of the mucosa, respiratory insufficiency, ssion secondary to CNS depression, pulmonary oedema, chemical pneumonitis and bronchitis. Cardiovascular result in arrhythmias and hypotension. is increased at higher temperatures. burs or aerosols (mists, fumes), generated by the material during the course of normal handling, may be nealth of the individual.
	Ingestion of ethar Blood concentration:	nol may produce nausea, vomiting, gastrointestinal bleeding, abdominal pain and diarrhoea. Systemic effects:
	<1.5 g/l	Mild: Impaired visual acuity, coordination and reaction time, emotional lability
Ingestion	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. Bradypnoea may occur early and tachypnoea may develop in cases of metabollic acidosis, hypoglycaemia and hypokalaemia.
	Symptoms include child who ingeste	vlene glycol produced reversible central nervous system depression in humans following ingestion of 60 ml. ed increased heart-rate (tachycardia), excessive sweating (diaphoresis) and grand mal seizures in a 15 month d large doses (7.5 ml/day for 8 days) as an ingredient of vitamin preparation. ed ingestions may cause hypoglycaemia (low levels of glucose in the blood stream) among susceptible

Chronic	causal association between human exposure to the material Toxic: danger of serious damage to health by prolonged expo Serious damage (clear functional disturbance or morphologic caused by repeated or prolonged exposure. As a rule the ma lesions. Such damage may become apparent following direct sub-acute (28 day) or chronic (two-year) toxicity tests. Long-term exposure to ethanol may result in progressive live other agents. Repeated ingestion of ethanol by pregnant women may adve producing effects collectively described as foetal alcohol synd disturbances, motor and language deficiency, behavioural dis Consumption of ethanol (in alcoholic beverages) may be link of individuals. Propylene glycol is though, by some, to be a sensitising print A study of 866 persons using a formulation containing propyl	tive response in experimental animals. d as carcinogenic to humans. There is sufficient data to establish a and the development of cancer. posure through inhalation, in contact with skin and if swallowed. cal change which may have toxicological significance) is likely to be iterial produces, or contains a substance which produces severe application in subchronic (90 day) toxicity studies or following r damage with fibrosis or may exacerbate liver injury caused by ersely affect the central nervous system of the developing foetus, drome. These include mental and physical retardation, learning sorders and reduced head size. ted to the development of Type I hypersensitivities in a small number cipal following the regular use of topical creams by eczema patients. ene glycol in a patch test indicated that propylene glycol caused sed by dehydration. Undiluted propylene glycol was tested on 1556
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 days but healing is usually spontaneous and complete. Irritation of the eyes may produce a heavy secretion of tears (lachrymation). Limited evidence or practical experience suggests, that the material may cause eye irritation in a substantial number of individuals. 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.	
Skin Contact	 health damage following entry through wounds, lesions or ab A single prolonged exposure is not likely to result in the mate be absorbed in potentially harmful amounts when applied in I areas of the body as part of a cream, other topical application material. Absorption under such circumstances can elevated Most liquid alcohols appear to act as primary skin irritants in not apparently in man. Open cuts, abraded or irritated skin should not be exposed to Entry into the blood-stream through, for example, cuts, abrase harmful effects. Examine the skin prior to the use of the material produces moderate skin irritation; evidence exist produces significant, but moderate, inflammation when a such inflammation being present twenty-four hours or more Skin irritation may also be present after prolonged or repeate (nonallergic). The dermatitis is often characterised by skin repeated on the skin irritation appeared on the skin irritation appearent is produced by skin repeated on the skin irritation is a skin irritation may also be present after prolonged or repeated (nonallergic). The dermatities is often characterised by skin repeated by skin repeated in the skin irritation is a skin repeated in the interval is a state in the material produces is a state in the skin irritation is a sk	classified under EC Directives); the material may still produce rasions. rial being absorbed in harmful amounts. However the material may arge quantities to severe burns (second or third degree) over large in or by prolonged contact with clothing accidentally wetted by the serum osmolality and may result in osmotic shock. humans. Significant percutaneous absorption occurs in rabbits but to this material isons, puncture wounds or lesions, may produce systemic injury with trial and ensure that any external damage is suitably protected. its, or practical experience predicts, that the material either tital number of individuals following direct contact, and/or pplied to the healthy intact skin of animals (for up to four hours), are after the end of the exposure period. ed exposure; this may result in a form of contact dermatitis dness (erythema) and swelling (oedema) which may progress to nis. At the microscopic level there may be intercellular oedema of
	that produced by ethanol), haemolysis and insignificant kidne The toxic effects of glycols (dihydric alcohols), following inger nervous system (CNS), nausea, vomiting and degenerative of Effects on the nervous system characterise over-exposure to weakness, giddiness, ataxia, (loss of muscle coordination), c nausea, vomiting and diarrhoea. In the absence of effective t animals acutely poisoned by the higher alcohols. The material has NOT been classified by EC Directives or oth of the lack of corroborating animal or human evidence. The m following ingestion, especially where pre-existing organ (e.g.	stion are similar to those of alcohol, with depression of the central thanges in liver and kidney. higher aliphatic alcohols. These include headache, muscle onfusion, delirium and coma. Gastrointestinal effects may include reatment, respiratory arrest is the most common cause of death in her classification systems as "harmful by ingestion". This is because naterial may still be damaging to the health of the individual, iver, kidney) damage is evident. Present definitions of harmful or ortality rather than those producing morbidity (disease, ill-health).

Dermal (rabbit) LD50: >2000 mg/kg ^[1]	Eye (rabbit): 100 mg - mild
Inhalation(Rat) LC50; >44.9 mg/L4h ^[2]	Eye (rabbit): 500 mg/24h - mild
Oral(Rat) LD50; >10400 mg/kg ^[2]	Eye: no adverse effect observed (not irritating) ^[1]
	Skin(human):104 mg/3d Intermit Mod
	Skin(human):500 mg/7days mild
	Skin: no adverse effect observed (not irritating) ^[1]
ΤΟΧΙΟΙΤΥ	IRRITATION
Dermal (rabbit) LD50: 17100 mg/kg ^[1]	Eye (rabbit): 500 mg SEVERE
Inhalation(Mouse) LC50; 39 mg/l4h ^[2]	Eye (rabbit):100mg/24hr-moderate
Oral(Rat) LD50; >7692 mg/kg ^[1]	Eye: adverse effect observed (irritating) ^[1]
	Skin (rabbit):20 mg/24hr-moderate
	Skin (rabbit):400 mg (open)-mild
	Skin: no adverse effect observed (not irritating) $^{\left[1\right] }$
ΤΟΧΙΟΙΤΥ	IRRITATION
Oral(Rat) LD50; >90 mg/kg ^[2]	Not Available
1. Value obtained from Europe ECHA Registered Sul	bstances - Acute toxicity 2.* Value obtained from manufacturer's SD
	Oral(Rat) LD50; >10400 mg/kg ^[2] TOXICITY Dermal (rabbit) LD50: 17100 mg/kg ^[1] Inhalation(Mouse) LC50; 39 mg/l4h ^[2] Oral(Rat) LD50; >7692 mg/kg ^[1] TOXICITY Oral(Rat) LD50; >90 mg/kg ^[2]

FW-CAC N&A Cookies & Cream Flavor	The following information refers to contact allerger Contact allergies quickly manifest themselves as o pathogenesis of contact eczema involves a cell-m skin reactions, e.g. contact urticaria, involve antibo	contact eczema, more rarely as u ediated (T lymphocytes) immune	rticaria or Quincke's oedema. The reaction of the delayed type. Other allergic
	simply determined by its sensitisation potential: the equally important.	distribution of the substance an	d the opportunities for contact with it are
WATER	No significant acute toxicological data identified in	literature search.	
FW-CAC N&A Cookies & Cream Flavor & PROPYLENE GLYCOL	The acute oral toxicity of propylene glycol is very le humans. Serious toxicity generally occurs only at prelatively short period of time. It would be nearly in contain at most 1 g/kg of PG. Cases of propylene administration or accidental ingestion of large quar	plasma concentrations over 1 g/L npossible to reach toxic levels by glycol poisoning are usually relat	, which requires extremely high intake over a consuming foods or supplements, which ed to either inappropriate intravenous
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	kin redness (erythema) and swell	ing the epidermis. Histologically there may be
	*	a 1	X
Acute Toxicity	×	Carcinogenicity	×
Skin Irritation/Corrosion		Reproductivity	X

Acute Toxicity	^	Carcinogenicity	^
Skin Irritation/Corrosion	×	Reproductivity	×
Serious Eye Damage/Irritation	*	STOT - Single Exposure	×
Respiratory or Skin sensitisation	*	STOT - Repeated Exposure	×
Mutagenicity	×	Aspiration Hazard	×
	Lege	end: 🗙 – Data either not avail	able or does not fill the criteria for classification

Data entrier not available of does not in
 Data available to make classification

SECTION 12 Ecological information

Toxicity

	Endpoint	Test Duration (hr)	Species	Value	Source
FW-CAC N&A Cookies & Cream Flavor	Not Available	Not Available	Not Available	Not Available	Not Available
propylene glycol	Endpoint	Test Duration (hr)	Species	Value	Source
	NOEC(ECx)	336	Algae or other aquatic plants	<5300mg/l	1

	LC50	96		Fish		>10000mg/l	2
	EC50	48		Crustacea		>0.342mg/L	4
	EC50	72		Algae or other aquatic plants		19300mg/l	2
	EC50	96		Algae or other aquatic plants		19000mg/l	2
	Endpoint	Test Duration (hr)	Sp	becies	Value)	Source
	EC50(ECx)	96	Alg	gae or other aquatic plants	<0.00)1mg/L	4
	LC50	96	Fis	sh	21.27	2-27.015mg/L	4
ethanol	EC50	48	Cr	ustacea	>0.18	88mg/L	4
	EC50	72	Al	gae or other aquatic plants	275m	ıg/l	2
	EC50	96	Al	gae or other aquatic plants	<0.00)1mg/L	4
	Endpoint	Test Duration (hr)		Species		Value	Source
water	Not Available	Not Available		Not Available		Not Available	Not Available
Legend:	3. EPIWIN Su	n 1. IUCLID Toxicity Data 2. Euro ite V3.12 (QSAR) - Aquatic Toxic atic Hazard Assessment Data 6.	sity Data (Es	timated) 4. US EPA, Ecotox data	abase - Aqu	atic Toxicity Da	nta 5.

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.

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)
water	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
propylene glycol	LOW (BCF = 1)
ethanol	LOW (LogKOW = -0.31)
water	LOW (LogKOW = -1.38)

Mobility in soil

Ingredient	Mobility
propylene glycol	HIGH (KOC = 1)
ethanol	HIGH (KOC = 1)
water	LOW (KOC = 14.3)

SECTION 13 Disposal considerations

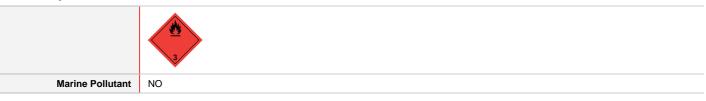
Waste treatment methods

Product / Packaging disposal	 Containers may still present a chemical hazard/ danger when empty. Return to supplier for reuse/ recycling if possible. Otherwise: If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. Where possible retain label warnings and SDS and observe all notices pertaining to the product.
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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.
Where in doubt contact the responsible authority.
▶ 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, flavorin	Extracts, flavoring, liquid		
Transport hazard class(es)	Class 3 Subrisk Not	Applicable		
Packing group	III			
Environmental hazard	Not Applicable	Not Applicable		
Special precautions for user	Hazard Label	3 ons B1, IB3, T2, TP1		

Air transport (ICAO-IATA / DGR)

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

Sea transport (IMDG-Code / GGVSee)

UN number	1197			
UN proper shipping name	EXTRACTS, FLAVOL	EXTRACTS, FLAVOURING, LIQUID		
Transport hazard class(es)	IMDG Class 3 IMDG Subrisk N	ot Applicable		
Packing group	Ш			
Environmental hazard	Not Applicable			
Special precautions for user	EMS Number Special provisions Limited Quantities	F-E , S-D 223 955 5 L		

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

Not Applicable

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

Product name	Group
propylene glycol	Not Available
ethanol	Not Available
water	Not Available

Transport in bulk in accordance with the ICG Code

Product name	Ship Type
propylene glycol	Not Available
ethanol	Not Available
water	Not Available

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 Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
US DOE Temporary Emergency Exposure Limits (TEELs)	US Toxicology Excellence for Risk Assessment (TERA) Workplace
US EPA Integrated Risk Information System (IRIS)	Environmental Exposure Levels (WEEL)

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)

water is found on the following regulatory lists

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

US TSCA Chemical Substance Inventory - Interim List of Active Substances

US NIOSH Recommended Exposure Limits (RELs)	
US OSHA Permissible Exposure Limits (PELs) Table Z-1	
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory	
US TSCA Chemical Substance Inventory - Interim List of Active Substances	

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)	
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	Yes
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	No

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; water)
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 - FBEPH	Yes
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 Other information

Revision Date	04/15/2021
Initial Date	04/15/2021

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 ES: Exposure Standard 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 AIIC: Australian Inventory of Industrial Chemicals DSL: Domestic Substances List NDSL: Non-Domestic Substances List IECSC: Inventory of Existing Chemical Substance in China EINECS: European INventory of Existing Commercial chemical Substances ELINCS: European List of Notified Chemical Substances NLP: No-Longer Polymers ENCS: Existing and New Chemical Substances Inventory KECI: Korea Existing Chemicals Inventory NZIoC: New Zealand Inventory of Chemicals PICCS: Philippine Inventory of Chemicals and Chemical Substances TSCA: Toxic Substances Control Act TCSI: Taiwan Chemical Substance Inventory INSQ: Inventario Nacional de Sustancias Químicas NCI: National Chemical Inventory FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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