

Flavor West Manufacturing, LLC. Version No: 1.1

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Chemwatch Hazard Alert Code: 2 Issue Date: 05/03/2021 Print Date: 05/03/2021 Initial Date: 05/03/2021

L.GHS.USA.EN

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

Product Identifier

Product name	FW-HDE N&A Honeydew Flavor
Synonyms	Not Available
Proper shipping name	Extracts, flavoring, liquid
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.

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 2B, Flammable Liquid Category 3

Label elements



Hazard statement(s)

H320	Causes eye irritation
H226	Flammable liquid and vapour

Precautionary statement(s) Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
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.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement(s) Response

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.
P303+P361+P353	IF ON SKIN (or hair): 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 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	90-99	propylene glycol
110-19-0	1-5	isobutyl acetate

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 or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. 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. Transport to hospital, or doctor.
Ingestion	 If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Seek medical advice.

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

 BCF (where regulations permit). Carbon dioxide. 		
--	--	--

Special hazards arising from the substrate or mixture

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

Advice for firefighters

	Fire Fighting	 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 Moderate fire hazard when exposed to heat or flame. Vapour forms an explosive mixture with air. 		Moderate fire hazard when exposed to heat or flame.

Issue Date: 05/03/202 Print Date: 05/03/202 Version No: 1.1 Page 4 of 11 **FW-HDE N&A Honeydew Flavor** Moderate explosion hazard when exposed to heat or flame. SECTION 6 ACCIDENTAL RELEASE MEASURES Personal precautions, protective equipment and emergency procedures Remove all ignition sources. Clean up all spills immediately. Minor Spills 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 RANK COLLECTION LIMITATIONS APPLICATION TYPF LAND SPILL - SMALL cross-linked polymer - particulate shovel shovel R, W, SS 1 cross-linked polymer - pillow throw pitchfork R, DGC, RT 1 sorbent clay - particulate 2 shovel shovel R,I, P wood fiber - pillow 3 throw pitchfork R, P, DGC, RT treated wood fiber - pillow pitchfork DGC, RT 3 throw foamed glass - pillow 4 throw pichfork R, P, DGC, RT LAND SPILL - MEDIUM cross-linked polymer - particulate 1 blower skiploader R,W, SS Major Spills polypropylene - particulate 2 blower skiploader W, SS, DGC sorbent clay - particulate 2 blower skiploader R, I, W, P, DGC polypropylene - mat 3 throw skiploader DGC, RT expanded mineral - particulate 3 blower skiploader R, I, W, P, DGC DGC, RT 4 throw polyurethane - mat skiploader 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 Clear area of personnel and move upwind. • Alert Fire Brigade and tell them location and nature of hazard. May be violently or explosively reactive.

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

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. DO NOT allow clothing wet with material to stay in contact with skin Avoid all personal contact, including inhalation. Wear protective clothing when risk of overexposure occurs.
Other information	 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.

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.
	 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
Storage	are incompatible with strong acids, acid chlorides, acid anhydrides, oxidising and reducing agents.
incompatibility	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.

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	isobutyl acetate	Isobutyl acetate	700 mg/m3 / 150 ppm	Not Available	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	isobutyl acetate	Isobutyl acetate	150 ppm	Not Available	Not Available	TLV® Basis: Eye & URT irr
US NIOSH Recommended Exposure Limits (RELs)	isobutyl acetate	Isobutyl ester of acetic acid, 2-Methylpropyl acetate, 2-Methylpropyl ester of acetic acid, β-Methylpropyl ethanoate	700 mg/m3 / 150 ppm	Not Available	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
propylene glycol			1300 mg/m3	7900 mg/m3
isobutyl acetate			1300 ppm	7500 ppm
Ingredient	Original IDLH	Revised IDLH		
propylene glycol	Not Available	Not Available 1,300 [LEL] ppm		
isobutyl acetate	7,500 ppm			

MATERIAL DATA

for isobutyl acetate:

Odour Threshold Value: 0.40-0.44 ppm (recognition)

The TLV-TWA is identical with that of n-butyl acetate and is thought to minimise the potential for ocular and upper respiratory tract irritation. 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.

Exposure controls

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. 		
Body protection	See Other protection below		
Other protection	 Overalls. PVC Apron. PVC protective suit may be required if exposure severe. Eyewash unit. 		
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-HDE N&A Honeydew Flavor

Material	СРІ
PE/EVAL/PE	A

* 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-P 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	A-AUS / Class 1 P2	-	A-PAPR-AUS / Class 1 P2
up to 25 x ES	Air-line*	A-2 P2	A-PAPR-2 P2
up to 50 x ES	-	A-3 P2	-
50+ 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)

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Clear colorless		
Physical state	Liquid	Relative density (Water = 1)	1.04
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)	42.56	Taste	Honeydew melon
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 (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	 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	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.
Ingestion	Accidental ingestion of the material may be damaging to the health of the individual. 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.
Skin Contact	 Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. The material may produce moderate skin irritation; limited evidence or practical experience suggests, that the material either: produces moderate inflammation of the skin in a substantial number of individuals following direct contact and/or 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.
Eye	Limited evidence exists, or practical experience suggests, that the material may cause eye irritation in a substantial number of individuals and/or is expected to produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur. Irritation of the eyes may produce a heavy secretion of tears (lachrymation).
Chronic	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.

FW-HDE N&A	ΤΟΧΙCΙΤΥ	IRRITATION	
Honeydew Flavor	Not Available	Not Available	
	ΤΟΧΙΟΙΤΥ	IRRITATION	
	Dermal (rabbit) LD50: >2000 mg/kg ^[1]	Eye (rabbi): 100 mg - mild
propylene glycol	Oral (rat) LD50: 20000 mg/kgd ^[2]	Eye (rabbi): 500 mg/24h - mild
		Skin(huma	n):104 mg/3d Intermit Mod
		Skin(huma	n):500 mg/7days mild
	ΤΟΧΙΟΙΤΥ	IRRIT	ATION
isobutyl acetate	Dermal (rabbit) LD50: >5000 mg/kg ^[1]	mode	prate
	Oral (rat) LD50: 13400 mg/kgd ^[2]	Skin	rabbit): 500 mg open mild
FW-HDE N&A Honeydew Flavor	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.		
	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 epidermis. The acute oral toxicity of propylene glycol is very low, and large quantities are required to cause perceptible health damage in humans.		
PROPYLENE GLYCOL	(nonallergic). This form of dermatitis is often ch Histologically there may be intercellular oedem epidermis. The acute oral toxicity of propylene glycol is ver	naracterised by skin redne a of the spongy layer (spo	re and may produce a contact dermatitis ss (erythema) and swelling the epidermis. ngiosis) and intracellular oedema of the
PROPYLENE GLYCOL	(nonallergic). This form of dermatitis is often ch Histologically there may be intercellular oedem epidermis. The acute oral toxicity of propylene glycol is ver	haracterised by skin redne a of the spongy layer (spo ary low, and large quantitie on leading to inflammation longed or repeated exposu- haracterised by skin redne	re and may produce a contact dermatitis as (erythema) and swelling the epidermis. ngiosis) and intracellular oedema of the as are required to cause perceptible health Repeated or prolonged exposure to irritants re and may produce a contact dermatitis
	 (nonallergic). This form of dermatitis is often ch Histologically there may be intercellular oedemi epidermis. The acute oral toxicity of propylene glycol is ver damage in humans. The material may produce moderate eye irritation may produce conjunctivitis. The material may cause skin irritation after prol- (nonallergic). This form of dermatitis is often ch 	haracterised by skin redne a of the spongy layer (spo ary low, and large quantitie on leading to inflammation longed or repeated exposu- haracterised by skin redne	re and may produce a contact dermatitis ss (erythema) and swelling the epidermis. ngiosis) and intracellular oedema of the s are required to cause perceptible health Repeated or prolonged exposure to irritants re and may produce a contact dermatitis ss (erythema) and swelling the 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

Legend: - Data required to make classification available

🗙 – Data available but does not fill the criteria for classification

🚫 – Data Not Available to make classification

CMR STATUS

Not Applicable

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

NC	ot ava	ILABL	.E
----	--------	-------	----

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

Continued...

FW-HDE N&A Honeydew Flavor isobutyl acetate Not Available Not Available Not Available Not Available Not Available

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
isobutyl acetate	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
propylene glycol	LOW (BCF = 1)
isobutyl acetate	LOW (LogKOW = 1.78)

Mobility in soil

Ingredient	Mobility
propylene glycol	HIGH (KOC = 1)
isobutyl acetate	LOW (KOC = 17.48)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

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

Labels Required



Marine Pollutant

Land transport (DOT)

UN number	1197
Packing group	III
UN proper shipping name	Extracts, flavoring, liquid
Environmental hazard	No relevant data
Transport hazard class(es)	Class 3
Special precautions for user	Special provisions 149, IB2, T4, TP1, TP8

Air transport (ICAO-IATA / DGR)

Packing group	111				
UN proper shipping name	Extracts, flavouring, liquid				
Environmental hazard	No relevant data				
Transport hazard class(es)	ICAO/IATA Class ICAO / IATA Subrisk ERG Code	3 Not Applicable 3L			
Special precautions for user	Special provisions		A3		
	Cargo Only Packing Instructions		366		
	Cargo Only Maximum Qty / Pack		220 L		
	Passenger and Cargo Packing Instructions		355		
	Passenger and Cargo Maximum Qty / Pack		60 L		
	Passenger and Cargo Limited Quantity Packing Instructions		Y344		
	Passenger and Cargo Limited Maximum Qty / Pack		10 L		

Sea transport (IMDG-Code / GGVSee)

UN number	1197			
Packing group	III			
UN proper shipping name	EXTRACTS, FLAVOURING, LIQUID			
Environmental hazard	Not Applicable			
Transport hazard class(es)	IMDG Class3IMDG SubriskNot Applicable			
Special precautions for user	EMS NumberF-E, S-DSpecial provisions223 955Limited Quantities5 L			

Transport in bulk according to Annex II of MARPOL 73 / 78 and the IBC code

Source	Ingredient	Pollution Category
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	isobutyl acetate	Y

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"
	"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
isobutyl	Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants", "US - Oregon Permissible Exposure Limits
acetate(110-19-0) is	(Z-1)","US - Michigan Exposure Limits for Air Contaminants","US - Alaska Limits for Air Contaminants","US NIOSH
found on the	Recommended Exposure Limits (RELs)", "US - Washington Permissible exposure limits of air contaminants", "US - Minnesota
following regulatory	Permissible Exposure Limits (PELs)","US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air
lists	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"

National Inventory	Status	
Australia - AICS	Y	
Canada - DSL	Y	
China - IECSC	Y	
Europe - EINEC / ELINCS / NLP	Y	
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

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.

This document is copyright.

Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH. TEL (+61 3) 9572 4700.