APEX FLAVORS, INC.

SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR)

Revision date 29-Aug-2024 Revision Number 1

1. Identification

Product identifier

Product Name Blueberry Pie Type, Natural & Artificial (Contains < 0.10% Artificial Top Note)

Other means of identification

Product Code(s) SC-ITEM 1337TTB

UN number or ID number UN1197

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use Food and Beverage Flavoring

Restrictions on use No information available

Details of the supplier of the safety data sheet

Manufacturer Address

Apex Flavors, Inc. 1361 Brass Mill Rd Suite E Belcamp, MD 21017-1239 United States (410) 565-6600

E-mail address sds@apexflavors.com

Emergency telephone number

Company Phone Number 410-565-6600

Emergency Telephone Chemtrec 1-800-424-9300

2. Hazard(s) identification

Classification

Flammable liquids	Catagony 2
<u> </u>	Category 3
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1
Carcinogenicity	Category 1A
Specific target organ toxicity (single exposure)	Category 1
Specific target organ toxicity (repeated exposure)	Category 1

Label elements



Danger

Hazard statements

Flammable liquid and vapor.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May cause cancer.

May cause respiratory irritation. May cause drowsiness or dizziness.

May cause damage to organs.

May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements - Prevention

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wear protective gloves, protective clothing, eye protection and face protection.

Wash face, hands and any exposed skin thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

Do not breathe dust, fume, gas, mist, vapors and spray.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Precautionary Statements - Response

Specific treatment (see .? on this label).

IF exposed: Call a POISON CENTER or doctor.

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice and attention.

Skin

IF ON SKIN: Wash with plenty of water and soap.

Take off contaminated clothing and wash it before reuse.

If skin irritation or rash occurs: Get medical advice and attention.

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor if you feel unwell.

Precautionary Statements - Storage

Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

Precautionary Statements - Disposal

Dispose of contents and container to an approved waste disposal plant.

Other information

Toxic to aquatic life with long lasting effects.

3. Composition/information on ingredients

Substance

Not applicable.

<u>Mixture</u>

Chemical name	CAS No.	Weight-%	Information Review	Date HMIRA filed and date exemption granted (if applicable)
PROPYLENE GLYCOL USP	57-55-6	50.00 - 70.00	•	-
ETHYL ALCOHOL 190 PROOF FOOD GRADE/KOSHER	64-17-5	20.00 - 40.00	-	-
FURFURAL	98-01-1	<1.00	•	-
ACETYL PROPIONYL FCC (2,3 PENTANEDIONE)	600-14-6	<1.00	-	-

4. First-aid measures

Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get

medical advice/attention.

Inhalation Remove to fresh air. IF exposed or concerned: Get medical advice/attention. Get medical

attention immediately if symptoms occur.

Eye contactRinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If

symptoms persist, call a physician. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical

attention if irritation develops and persists.

Skin contact May cause an allergic skin reaction. If symptoms persist, call a physician. Wash off

immediately with soap and plenty of water for at least 15 minutes.

Ingestion Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious

person. Call a physician.

Self-protection of the first aider Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Symptoms Itching. Rashes. Hives. May cause redness and tearing of the eyes. Burning sensation.

Inhalation of high vapor concentrations may cause symptoms like headache, dizziness,

tiredness, nausea and vomiting.

Effects of Exposure May cause cancer. May cause adverse reproductive effects - such as birth defect,

miscarriages, or infertility. Mutagenic effects. Causes damage to organs. Causes damage to

organs through prolonged or repeated exposure.

Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization in susceptible persons. Treat symptomatically.

5. Fire-fighting measures

surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the

chemical

Product is or contains a sensitizer. May cause sensitization by skin contact.

Explosion data

Sensitivity to mechanical impact None. Sensitivity to static discharge None.

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal

protective equipment as required. Evacuate personnel to safe areas. Keep people away

from and upwind of spill/leak.

Other information Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with

skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Remove contaminated clothing and shoes.

Avoid breathing vapors or mists.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up.

8. Exposure controls/personal protection

Control parameters Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
ETHYL ALCOHOL 190 PROOF FOOD	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900	IDLH: 3300 ppm
GRADE/KOSHER		mg/m³	TWA: 1000 ppm TWA: 1900
64-17-5		(vacated) TWA: 1000 ppm	mg/m³
		(vacated) TWA: 1900 mg/m ³	
FURFURAL	TWA: 2 ppm	TWA: 5 ppm	IDLH: 100 ppm

98-01-1	S*	TWA: 20 mg/m ³	
		(vacated) TWA: 2 ppm	
		(vacated) TWA: 8 mg/m ³	
		(vacated) S*	
		` S* ´	

Chemical name	Alberta	British Columbia	Ontario	Quebec
PROPYLENE GLYCOL USP	-	-	TWA: 10 mg/m ³ TWA:	-
57-55-6			50 ppm TWA: 155	
			mg/m³	
ETHYL ALCOHOL 190 PROOF	TWA: 1000 ppm TWA:	STEL: 1000 ppm	STEL: 1000 ppm	TWA: 1000 ppm TWA:
FOOD GRADE/KOSHER	1880 mg/m ³			1880 mg/m³
64-17-5	-			-
FURFURAL	TWA: 2 ppm	TWA: 2 ppm	TWA: 2 ppm	TWA: 2 ppm
98-01-1	TWA: 7.9 mg/m ³	Skin	Skin	TWA: 7.9 mg/m ³
	Skin			Skin

Appropriate engineering controls

Engineering controls Showers

Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Hand protection Wear suitable gloves. Impervious gloves.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are

exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Do not eat, drink or smoke when using this product. Wash hands before breaks and

immediately after handling the product. Wear suitable gloves and eye/face protection. Avoid

contact with skin, eyes or clothing.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state Liquid Appearance Liquid

Color Colorless to light yellow

Odor Blueberry Pie

Odor threshold No information available

Property Values Remarks • Method

pHNo data availableNone knownMelting point / freezing pointNo data availableNone knownInitial boiling point and boiling rangeNo data availableNone knownFlash point31 C. 87 F.None known

Evaporation rateNo data availableNone knownFlammabilityNo data availableNone knownFlammability Limit in AirNone known

Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

limits

None known Vapor pressure No data available Relative vapor density No data available None known Relative density 0.9692 - 0.9862 None known Water solubility Soluble in water None known Solubility(ies) No data available None known Partition coefficient No data available None known **Autoignition temperature** No data available None known **Decomposition temperature** No data available None known Kinematic viscosity No data available None known No data available Dynamic viscosity None known

Other information

Explosive properties No information available Oxidizing properties No information available Softening point No information available Molecular weight No information available **VOC** content No information available **Liquid Density** No information available **Bulk density** No information available Specific Gravity @ 25C 0.9662 - 0.9862 0.9692 - 0.9892 1.4111 - 1.4311 Specific Gravity @ 20C Refractive Index @ 20C

10. Stability and reactivity

Reactivity No information available.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Conditions to avoidNone known based on information supplied.

Incompatible materials Strong acids. Strong bases. Strong oxidizing agents.

Hazardous decomposition products None known based on information supplied.

11. Toxicological information

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. May cause irritation of

respiratory tract. May cause drowsiness or dizziness.

Eye contact Specific test data for the substance or mixture is not available. Causes serious eye irritation.

(based on components). May cause redness, itching, and pain.

Skin contact May cause sensitization by skin contact. Specific test data for the substance or mixture is

not available. Repeated or prolonged skin contact may cause allergic reactions with

susceptible persons. (based on components). Causes skin irritation.

Ingestion Specific test data for the substance or mixture is not available. Ingestion may cause

gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Itching. Rashes. Hives. Redness. May cause redness and tearing of the eyes. Inhalation of

high vapor concentrations may cause symptoms like headache, dizziness, tiredness,

nausea and vomiting.

Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

 ATEmix (oral)
 14,027.10 mg/kg

 ATEmix (dermal)
 21,464.40 mg/kg

 ATEmix (inhalation-gas)
 99,999.00 ppm

 ATEmix (inhalation-vapor)
 99,999.00 mg/l

 ATEmix (inhalation-dust/mist)
 72,506.20 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
PROPYLENE GLYCOL USP	20000 mg/kg (Rat)	20800 mg/kg (Rabbit)	-
57-55-6			
ETHYL ALCOHOL 190 PROOF FOOD	7060 mg/kg (Rat)	-	124.7 mg/L (Rat) 4 h
GRADE/KOSHER			
64-17-5			
FURFURAL	125 mg/kg (Rat)	500 - 1000 mg/kg (Rabbit)	175 ppm (Rat) 6 h
98-01-1			
ACETYL PROPIONYL FCC (2,3	3 g/kg (Rat)	2500 mg/kg (Rabbit)	-
PENTANEDIONE)			
600-14-6			

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Causes skin irritation.

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes serious eye irritation.

Respiratory or skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity Contains a known or suspected mutagen. Classification based on data available for

ingredients. May cause genetic defects.

Carcinogenicity Contains a known or suspected carcinogen. Classification based on data available for

ingredients. May cause cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

	The table below material back agency has noted any migroundin as a careful gen.				
Chemical name	ACGIH	IARC	NTP	OSHA	
ETHYL ALCOHOL 190 PROOF FOOD GRADE/KOSHER 64-17-5	А3	Group 1	Known	X	
FURFURAL 98-01-1	А3	Group 3	-	-	

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

Occupational Safety and Health Administration of the US Department of Labor

X - Present

Reproductive toxicity Classification based on data available for ingredients. May damage fertility or the unborn

child.

STOT - single exposure Based on the classification criteria of the Globally Harmonized System as adopted in the

country or region with which this safety data sheet complies, this product has been determined to cause systemic target organ toxicity from acute exposure. (STOT SE). Causes damage to organs. May cause respiratory irritation. May cause drowsiness or

dizziness.

STOT - repeated exposureCauses damage to organs through prolonged or repeated exposure.

Aspiration hazard No information available.

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
PROPYLENE GLYCOL USP 57-55-6	19000: 96 h Pseudokirchneriella subcapitata mg/L EC50	41 - 47: 96 h Oncorhynchus mykiss mL/L LC50 static 51400: 96 h Pimephales promelas mg/L LC50 static 51600: 96 h Oncorhynchus mykiss mg/L LC50 static 710: 96 h Pimephales promelas mg/L LC50	-	1000: 48 h Daphnia magna mg/L EC50 Static 10000: 24 h Daphnia magna mg/L EC50
ETHYL ALCOHOL 190 PROOF FOOD GRADE/KOSHER 64-17-5	-	12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 100: 96 h Pimephales promelas mg/L LC50 static 13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through		9268 - 14221: 48 h Daphnia magna mg/L LC50 10800: 24 h Daphnia magna mg/L EC50 2: 48 h Daphnia magna mg/L EC50 Static
FURFURAL 98-01-1	-	13.4 - 19.3: 96 h Pimephales promelas mg/L LC50 static 16.79 - 26.35: 96 h Pimephales promelas mg/L LC50 flow-through	-	29: 24 h Daphnia magna mg/L EC50

No information available. Persistence and degradability

Bioaccumulation

Component Information

Chemical name	Partition coefficient
ETHYL ALCOHOL 190 PROOF FOOD GRADE/KOSHER	-0.32
64-17-5	
FURFURAL	0.67
98-01-1	

Other adverse effects No information available.

13. Disposal considerations

Disposal methods

Waste from residues/unused

products

Dispose of in accordance with local regulations. Dispose of waste in accordance with

environmental legislation.

Do not reuse empty containers. Contaminated packaging

This product contains one or more substances that are listed with the State of California as California waste information

a hazardous waste.

14. Transport information

DOT

UN number or ID number UN1197

Proper shipping name Extracts, flavoring, liquid

Transport hazard class(es) Packing group Ш **DOT Marine Pollutant**

UN1197, Extracts, flavoring, liquid, 3, III, Marine pollutant Description

Special Provisions B1, IB3, T2, TP1

Emergency Response Guide 127

Number

TDG

No components found suitable for Marine Pollutant Name.

UN number or ID number UN1197

UN proper shipping name Extracts, flavouring, liquid

Transport hazard class(es) Packing group

Description UN1197, Extracts, flavouring, liquid, 3, III

MEX

UN number or ID number UN1197 **UN** proper shipping name Extracts, liquid

Transport hazard class(es)

Packing group

Description UN1197, Extracts, liquid, 3, III

Special Provisions

ICAO (air)

UN number or ID number
UN proper shipping name
UN1197
Extracts, liquid

Transport hazard class(es) 3
Packing group III

Description UN1197, Extracts, liquid, 3, III

Special Provisions A3

IATA

UN number or ID number UN1197 UN proper shipping name Extracts, liquid

Transport hazard class(es) 3
Packing group III
ERG Code 3L
Special Provisions A3

Description UN1197, Extracts, liquid, 3, III

UN number or ID number UN1197 UN proper shipping name Extracts, liquid

Transport hazard class(es)

Packing group

EmS-No.

Special Provisions

Marine pollutant

3

III

F-E, S-D

223, 955

Description UN1197, Extracts, liquid, 3, III, (0°C c.c.), Marine pollutant

15. Regulatory information

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

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

TSCA Contact supplier for inventory compliance status.

Chemical name	CAS No.	Inventory Listing Status	Commercial Activity Designation
PROPYLENE GLYCOL USP	57-55-6	-	Unknown *
ETHYL ALCOHOL 190 PROOF FOOD GRADE/KOSHER	64-17-5	-	Unknown *
ACETOIN 96/100% FCC NATURAL	513-86-0	-	Unknown *
FURFURAL	98-01-1	-	Unknown *
ACETYL PROPIONYL FCC (2,3 PENTANEDIONE)	600-14-6	-	Unknown *

^{*}Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements

DSL/NDSL Contact supplier for inventory compliance status.

EINECS/ELINCS
Contact supplier for inventory compliance status.

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AIIC - Australian Inventory of Industrial Chemicals **NZIOC** - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
FURFURAL 98-01-1	5000 lb	-	-	Х

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical name	Chemical name Hazardous Substances RQs		Reportable Quantity (RQ)
FURFURAL 98-01-1	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals: Ethyl alcohol is only considered a Proposition 65 developmental hazard when it is ingested as an alcoholic beverage

Chemical name	California Proposition 65	
ETHYL ALCOHOL 190 PROOF FOOD GRADE/KOSHER - 64-17-5	Carcinogen	
	Developmental	

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
PROPYLENE GLYCOL USP	X	-	X

57-55-6			
ETHYL ALCOHOL 190 PROOF FOOD GRADE/KOSHER 64-17-5	X	X	X
FURFURAL 98-01-1	Х	Х	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

NFPA **Health hazards** 3 Flammability 0 **Instability** 0 Special hazards -Health hazards * 3 HMIS Flammability 0 Physical hazards 0 Personal protection X

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: Exposure controls/personal protection

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value Sk* Skin designation

Sensitizers

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA) EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

National Institute of Technology and Evaluation (NITE)

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

U.S. National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications

Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set

World Health Organization

Revision date 29-Aug-2024

Revision Note No information available.

Disclaimer

WARNING/DISCLAIMER:

Our ingredients have not been tested, nor have they been determined safe, for inhalation or use in any electronic smoking devices, electronic nicotine delivery systems, electronic cigarettes, or other similar devices (collectively "E-Cigarettes") or in any E-Liquids used with E-Cigarettes. By receiving Apex Flavors, Inc ingredients, the recipient confirms that they will not use these ingredients in connection with the manufacture and distribution of E-Cigarettes, E-Liquids or any component thereof. WE DISCLAIM, TO THE FULLEST EXTENT PERMITTED BY LAW, ALL WARRANTIES, EXPRESS OR IMPLIED, and disclaim all liability in connection with the use of our ingredients in connection with E-Cigarettes and E-Liquids. All such risks are assumed by you and the user.

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet