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 30-May-2024 Revision Number 1

1. Identification

Product identifier

Product Name Pineapple Juicy Type, Natural Flavor Blend

Other means of identification

Product Code(s) SC-ITEM 1317

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

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 2
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 1

Label elements





Danger

Hazard statements

Causes skin irritation.

Causes serious eye irritation.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

May cause respiratory irritation. May cause drowsiness or dizziness.

Causes 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.

Use only outdoors or in a well-ventilated area.

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

In case of inadequate ventilation wear respiratory protection.

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.

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.

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.

Unknown acute toxicity

79.9 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Other information

No information available.

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Chemical name	CAS No.	Weight-%	Information Review	Date HMIRA filed and date exemption granted (if applicable)
PROPYLENE GLYCOL USP	57-55-6	60.00 - 90.00	-	-
CITRIC ACID	77-92-9	1.00 - 5.00	-	-
BENZYL ALCOHOL	100-51-6	1.00 - 5.00	-	-
MALIC ACID	6915-15-7	1.00 - 5.00	-	-
ACETIC ACID (NATURAL)	64-19-7	<1.00	-	-

4. First-aid measures

Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance. Immediate medical attention is

required.

Inhalation May cause allergic respiratory reaction. If breathing has stopped, give artificial respiration.

Get medical attention immediately. Remove to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Get immediate medical attention. Immediate medical attention is required. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained

personnel should) give oxygen.

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 May produce an allergic reaction. Do NOT induce vomiting. Rinse mouth. Never give

anything by mouth to an unconscious person. Get immediate medical attention.

Self-protection of the first aider Ensure that medical personnel are aware of the material(s) involved, take precautions to

protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or

clothing. Use personal protective equipment as required. See section 8 for more

information. Do not use mouth-to-mouth method if victim ingested or inhaled the substance;

give artificial respiration with the aid of a pocket mask equipped with a one-way valve or

other proper respiratory medical device. Do not breathe vapor or mist.

Most important symptoms and effects, both acute and delayed

Symptoms May cause allergy or asthma symptoms or breathing difficulties if inhaled. Coughing and/ or

wheezing. Itching. Rashes. Hives. May cause redness and tearing of the eyes. Burning sensation. Difficulty in breathing. Inhalation of high vapor concentrations may cause

symptoms like headache, dizziness, tiredness, nausea and vomiting.

Effects of Exposure May cause adverse reproductive effects - such as birth defect, miscarriages, or infertility.

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 mediaDo 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 inhalation. 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. Do not breathe vapor or mist.

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. 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. Do not breathe vapor or mist. Handle product only in closed system or provide appropriate exhaust ventilation.

Conditions for safe storage, including any incompatibilities

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

Keep out of the reach of children.

8. Exposure controls/personal protection

Control parameters Exposure Limits

	Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Ī	ACETIC ACID (NATURAL)	STEL: 15 ppm	TWA: 10 ppm TWA: 25 mg/m ³	IDLH: 50 ppm
	64-19-7	TWA: 10 ppm	(vacated) TWA: 10 ppm	TWA: 10 ppm TWA: 25 mg/m ³
			(vacated) TWA: 25 mg/m ³	STEL: 15 ppm STEL: 37
				mg/m³

Revision date 30-May-2024

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	
ACETIC ACID (NATURAL)	TWA: 10 ppm TWA: 25	TWA: 10 ppm	TWA: 10 ppm	TWA: 10 ppm TWA: 25
64-19-7	mg/m³	STEL: 15 ppm	STEL: 15 ppm	mg/m³
	STEL: 15 ppm STEL: 37			STEL: 15 ppm STEL: 37
	mg/m³			mg/m³

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.

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

General hygiene considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do

not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and immediately after handling the product. Do not breathe vapor or mist. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing

is recommended.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state Liquid Appearance Liquid

Color Colorless to light yellow

Odor Pineapple

Odor threshold No information available

Property Values Remarks • Method

No data available рΗ None known Melting point / freezing point No data available None known Initial boiling point and boiling rangeNo data available None known 93 C. 199 F. Flash point None known **Evaporation rate** No data available None known Flammability No data available None known Flammability Limit in Air

None known

Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

limits

Vapor pressure No data available None known Relative vapor density No data available None known Relative density 0.9952 - 1.1922 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 No data available None known **Decomposition temperature** No data available Kinematic viscosity None known Dynamic viscosity No data available 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 No information available **Bulk density** Specific Gravity @ 25C 0.9922 - 1.1922 0.9952 - 1.1952 Specific Gravity @ 20C 1.4103 - 1.4303 Refractive Index @ 20C

10. Stability and reactivity

No information available. Reactivity

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Excessive heat. Conditions to avoid

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 sensitization in

susceptible persons. (based on components). May cause irritation of respiratory tract. Toxic

by inhalation. 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 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).

May cause sensitization by skin contact. Causes skin irritation.

Ingestion Specific test data for the substance or mixture is not available. May cause additional affects

as listed under "Inhalation". Ingestion may cause gastrointestinal irritation, nausea, vomiting

and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling

of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing. Coughing and/ or wheezing. Itching. Rashes. Hives. Redness. May cause redness and tearing of the eyes. Difficulty in breathing. Inhalation of high vapor concentrations may

cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Acute toxicity Toxic by inhalation.

Numerical measures of toxicity

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

 ATEmix (oral)
 17,382.70 mg/kg

 ATEmix (dermal)
 24,051.80 mg/kg

 ATEmix (inhalation-gas)
 99,999.00 ppm

 ATEmix (inhalation-vapor)
 147.40 mg/l

 ATEmix (inhalation-dust/mist)
 0.671 mg/l

Unknown acute toxicity

79.9 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
PROPYLENE GLYCOL USP 57-55-6	20000 mg/kg (Rat)	20800 mg/kg (Rabbit)	-
CITRIC ACID 77-92-9	3000 mg/kg (Rat)	-	-
BENZYL ALCOHOL 100-51-6	1230 mg/kg (Rat)	2000 mg/kg (Rabbit)	8.8 mg/L (Rat)4 h
ACETIC ACID (NATURAL) 64-19-7	3310 mg/kg (Rat)	1060 mg/kg (Rabbit)	11.4 mg/L (Rat)4 h

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 allergy or asthma symptoms or breathing difficulties if inhaled. May cause an

allergic skin reaction.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity Classification based on data available for ingredients. Suspected of damaging 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

Chemical name	Algae/aquatic plants	Fish	Toxicity to	Crustacea
			microorganisms	
PROPYLENE GLYCOL USP	19000: 96 h	41 - 47: 96 h	-	1000: 48 h Daphnia
57-55-6	Pseudokirchneriella	Oncorhynchus mykiss		magna mg/L EC50
	subcapitata mg/L EC50	mL/L LC50 static 51400:		Static 10000: 24 h
		96 h Pimephales		Daphnia magna mg/L
		promelas mg/L LC50		EC50
		static 51600: 96 h		
		Oncorhynchus mykiss		
		mg/L LC50 static 710:		
		96 h Pimephales		
		promelas mg/L LC50		
CITRIC ACID	-	1516: 96 h Lepomis	-	120: 72 h Daphnia
77-92-9		macrochirus mg/L LC50		magna mg/L EC50
		static		
BENZYL ALCOHOL	35: 3 h Anabaena	10: 96 h Lepomis	-	23: 48 h water flea mg/L
100-51-6	variabilis mg/L EC50	macrochirus mg/L LC50		EC50
	static 460: 96 h			
		Pimephales promelas		
		mg/L LC50 static		
ACETIC ACID (NATURAL)	-	75: 96 h Lepomis	-	47: 24 h Daphnia magna
64-19-7		macrochirus mg/L LC50		mg/L EC50 65: 48 h
		static 79: 96 h		Daphnia magna mg/L
		Pimephales promelas		EC50 Static
		mg/L LC50 static		

Persistence and degradability

No information available.

Bioaccumulation

Component Information

Chemical name	Partition coefficient
CITRIC ACID	-1.72
77-92-9	

BENZYL ALCOHOL	1.1
100-51-6	
ACETIC ACID (NATURAL)	-0.31
64-19-7	

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.

Contaminated packaging

Do not reuse empty containers.

California waste information

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

a hazardous waste.

14. Transport information

DOT Not regulated

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 *
WATER	7732-18-5	Present	Active
CITRIC ACID	77-92-9	-	Unknown *
BENZYL ALCOHOL	100-51-6	-	Unknown *
MALIC ACID	6915-15-7	-	Unknown *
ACETIC ACID (NATURAL)	64-19-7	-	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. Contact supplier for inventory compliance status. **ENCS IECSC** Contact supplier for inventory compliance status. Contact supplier for inventory compliance status. KECL **PICCS** Contact supplier for inventory compliance status. AIIC Contact supplier for inventory compliance status. **NZIoC** 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

AllC - 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
ACETIC ACID (NATURAL) 64-19-7	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	Hazardous Substances RQs	Extremely Hazardous Substances RQs	Reportable Quantity (RQ)
ACETIC ACID (NATURAL) 64-19-7	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations

U.S. State Right-to-Know Regulations

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

Revision date	30-May-2024

57-55-6			
WATER 7732-18-5	-	-	Х
BENZYL ALCOHOL 100-51-6	-	Х	Х
ACETIC ACID (NATURAL) 64-19-7	X	Х	Х

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

NFPAHealth hazards3Flammability0Instability0Special hazards-HMISHealth hazards2 *Flammability0Physical hazards0Personal protectionX

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 30-May-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