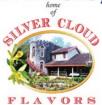
APEX FLAVORS, INC.



SAFETY DATA SHEET.

This safety data sheet complies with the requirements of: OSHA CFR Title 29 CFR 1910.1200

Version 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Code(s) 664TTB

Product name WILD ACAI BERRY TYPE, NATURAL FLAVOR BLEND

UN/ID No 1197

Recommended use of the chemical and restrictions on use
Recommended Use
Uses advised against
No information available

Manufacturer Apex Flavors, Inc.

1371 Brass Mill Rd. Suite A Belcamp, MD 21017 410-565-6600

Emergency telephone

Chemtrec: 1-800-424-9300 for US/ 703-527-3887 outside US

2. HAZARDS IDENTIFICATION

Classification

Serious eye damage/eye irritation	Category 2A
Carcinogenicity	Category 1A
Flammable liquids	Category 2

GHS Label elements, including precautionary statements

Emergency Overview

Danger

Hazard Statements

Causes serious eye irritation
May cause cancer
Highly flammable liquid and vapor



Appearance clear Physical state liquid Aroma acai

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

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/attention

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other information

- Toxic to aquatic life with long lasting effects
- · Toxic to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %	Trade Secret
ETHYL ALCOHOL	64-17-5	30-50%	*
GLYCERINE	56-81-5	15-20%	*
ACETALDEHYDE	75-07-0	<1	*

4. FIRST AID MEASURES

First aid measures for different exposure routes

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a physician.

Skin contact Wash skin with soap and water.

Inhalation Move to fresh air.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Most important symptoms/effects, acute and delayed

Main Symptoms Hives.

Indication of immediate medical attention and special treatment needed, if necessary

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

Decomposition by contact with water may generate vapors which can be ignited by heat or open flame.

Specific hazards arising from the chemical

No information available.

Explosion data

Sensitivity to Mechanical Impact none.
Sensitivity to Static Discharge Yes.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

Environmental precautions

Environmental precautionsBeware of vapors accumulating to form explosive concentrations. Vapors can accumulate in

low areas.

Methods and materials 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.

Conditions for safe storage, including any incompatibilities

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

Incompatible productsNone known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure GuidelinesThis product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
ETHYL ALCOHOL	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900	IDLH: 3300 ppm
64-17-5		mg/m³	TWA: 1000 ppm TWA: 1900
		(vacated) TWA: 1000 ppm	mg/m³
		(vacated) TWA: 1900 mg/m ³	
GLYCERINE	-	TWA: 15 mg/m ³ mist, total	
56-81-5		particulate TWA: 5 mg/m³ mist,	
		respirable fraction	
		(vacated) TWA: 10 mg/m³ mist,	
		total particulate (vacated) TWA: 5	
		mg/m³ mist, respirable fraction	
ACETALDEHYDE	Ceiling: 25 ppm	TWA: 200 ppm TWA: 360 mg/m ³	IDLH: 2000 ppm
75-07-0		(vacated) TWA: 100 ppm	
		(vacated) TWA: 180 mg/m ³	
		(vacated) STEL: 150 ppm	
		(vacated) STEL: 270 mg/m ³	
ETHYL ACETATE	TWA: 400 ppm	TWA: 400 ppm TWA: 1400	IDLH: 2000 ppm
141-78-6		mg/m³	TWA: 400 ppm TWA: 1400
		(vacated) TWA: 400 ppm	mg/m³
		(vacated) TWA: 1400 mg/m ³	
ISOAMYL ALCOHOL	STEL: 125 ppm	TWA: 100 ppm TWA: 360 mg/m ³	IDLH: 500 ppm
123-51-3	TWA: 100 ppm	(vacated) TWA: 100 ppm	TWA: 100 ppm TWA: 360 mg/m ³
		(vacated) TWA: 360 mg/m ³	STEL: 125 ppm STEL: 450
		(vacated) STEL: 125 ppm	mg/m³

		(vacated) STEL: 450 mg/m ³	
DIMETHYL SULFIDE 75-18-3	TWA: 10 ppm	-	
ISOBUTYL ACETATE 110-19-0	TWA: 150 ppm	TWA: 150 ppm TWA: 700 mg/m³ (vacated) TWA: 150 ppm (vacated) TWA: 700 mg/m³	IDLH: 1300 ppm TWA: 150 ppm TWA: 700 mg/m³
Methyl n-amyl ketone 110-43-0	TWA: 50 ppm	TWA: 100 ppm TWA: 465 mg/m³ (vacated) TWA: 100 ppm (vacated) TWA: 465 mg/m³	IDLH: 800 ppm TWA: 100 ppm TWA: 465 mg/m ³
ACETOPHENONE 98-86-2	TWA: 10 ppm	-	
PINENES 80-56-8	TWA: 20 ppm	-	
CITRAL 5392-40-5	TWA: 5 ppm inhalable fraction and vapor S*	<u>-</u>	
BENZONITRILE 100-47-0	-	TWA: 5 mg/m³ CN (vacated) TWA: 5 mg/m³ S*	IDLH: 25 mg/m³ CN

NIOSH IDLH: Immediately Dangerous to Life or Health

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962

(11th Cir., 1992).

Exposure controls

Engineering Controls Showers

Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection If splashes are likely to occur, wear:.

Skin and body protection Chemical resistant apron.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved

respiratory protection must be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be

provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

No information available

No information available

No information available No information available

No information available

No information available

Physical and chemical properties

Physical state liquid **Appearance** clear Aroma acai

Color Slightly yellow

Method Property Values

No information available На

FCC Method Melting/freezing point Boiling point/boiling range FCC Method 22 °C / 71 °F Closed cup

Flash Point **Evaporation rate** No information available No information available Flammability (solid, gas) No information available No information available No information available

Flammability Limits in Air

Upper flammability limit No information available lower flammability limit No information available

Vapor pressure mm Hg 20°C

Vapor density No information available FCC Method Specific Gravity @ 25C 0.9474 - 0.9774 Specific Gravity @ 20C 0.9504 - 0.9804 FCC Method

Refractive Index 1.3690 - 1.3990 FCC Method Water solubility Practically insoluble

Solubility in other solvents

Partition coefficient: n-octanol/water No information available

Autoignition temperature

Decomposition temperature

Viscosity, kinematic No information available Viscosity, dynamic No information available **Explosive properties** No information available **Oxidizing Properties** No information available

Other information

No information available Softening point **Molecular Weight** No information available **VOC Content(%)** No information available **Density VALUE** No information available **Bulk Density VALUE** No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

Extremes of temperature and direct sunlight.

Incompatible Materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information Product does not present an acute toxicity hazard based on known information

Inhalation There is no data available for this product.

Eye contact There is no data available for this product.

Skin contact There is no data available for this product.

Ingestion There is no data available for this product.

Chemical Name	Oral LD50	Dermal LD50	LC50 Inhalation
ETHYL ALCOHOL 64-17-5	7060 mg/kg (Rat)	-	124.7 mg/L (Rat) 4 h
PROPYLENE GLYCOL 57-55-6	20000 mg/kg (Rat)	20800 mg/kg (Rabbit)	-
GLYCERINE 56-81-5	-	10 g/kg(Rabbit)	570 mg/m³ (Rat)1 h
ACETALDEHYDE 75-07-0	1930 mg/kg (Rat)	-	-

Information on toxicological effects

Symptoms No information available.

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

Sensitization Germ Cell MutagenicityNo information available.
No information available.

Carcinogenicity This product contains one or more substances which are classified by IARC as

carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly

carcinogenic to humans (Group 2B).

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Chemical Name	ACGIH	IARC	NTP	OSHA
ETHYL ALCOHOL 64-17-5	A3	Group 1	Known	Х
ACETALDEHYDE 75-07-0	A3	Group 1 Group 2B	Reasonably Anticipated	Х

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity Specific target organ systemic toxicity (single exposure) Specific target organ systemic No information available. No information available.

toxicity (repeated exposure)

No information available.

Chronic toxicity
Target Organ Effects

May cause adverse liver effects. Contains a known or suspected reproductive toxin. Blood, Central nervous system, Eyes, Kidney, Liver, Reproductive system, Respiratory

system, Skin.

Aspiration hazard No information available.

Revision Date 03-Jun-2020

Numerical measures of toxicity - Product Information

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

document . mg/kg mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects

13.38542% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Chemical Name	log Pow
ETHYL ALCOHOL	-0.32
64-17-5	
GLYCERINE	-1.76
56-81-5	
ACETALDEHYDE	0.5
75-07-0	

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment

regulations.

Contaminated packaging Do not reuse container.

US EPA Waste Number D001 U001 U004 U112

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

Chemical Name	California Hazardous Waste Status
ETHYL ALCOHOL	Toxic Ignitable
64-17-5	·
ACETALDEHYDE	Toxic Ignitable
75-07-0	·

14. TRANSPORT INFORMATION

DOT/ADR

UN/ID No 1197

Proper shipping name EXTRACTS, FLAVOURING, LIQUID

Hazard class 3
Packing Group II
ERG Code 127

ICAO/IATA

UN/ID No 1197

Proper shipping name EXTRACTS, FLAVOURING, LIQUID

Hazard class 3 Packing Group II

IMDG / IMO

UN/ID No 1197

Proper shipping name EXTRACTS, FLAVOURING, LIQUID

Hazard class 3
Packing Group

15. REGULATORY INFORMATION

International Inventories

TSCA DSL/NDSL EINECS/ELINCS ENCS IECSC KECL PICCS AICS -

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

AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or 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

Acute Health HazardnoChronic Health HazardnoFire HazardYesSudden Release of Pressure HazardnoReactive Hazardno

Clean Water Act

This product does not contain any substances regulated as 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
ACETALDEHYDE 75-07-0	1000 lb			Х

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive

Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
ACETALDEHYDE	1000 lb		RQ 1000 lb final RQ RQ 454 kg final
75-07-0			RQ

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65
ETHYL ALCOHOL - 64-17-5	Carcinogen
ACETALDEHYDE - 75-07-0	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
ETHYL ALCOHOL	X	X	X
64-17-5			
PROPYLENE GLYCOL	X		X
57-55-6			
GLYCERINE	X	X	X
56-81-5			
ACETALDEHYDE	X	X	X
75-07-0			
ETHYL BUTYRATE	X	X	X
105-54-4			
METHYL EUGENOL	X		
93-15-2			
BENZONITRILE	X	X	X
100-47-0			

U.S. EPA Label information

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazard 2	Flammability 4	Instability 0	Physical and chemical hazards *
<u>HMIS</u>	Health Hazard 2	Flammability 4	Physical Hazard 0	Personal protection B

Revision Date 03-Jun-2020

Revision Note No information available

Revision# 1

WARNING/DISCLAIMER:

The ingredients/flavors provided by Trilogy have not been tested, nor have they been deemed safe, for inhalation or use in electronic smoking devices, electronic nicotine delivery systems, electronic cigarettes or other similar devices (collectively "E-Cigarettes"). In supplying ingredients/flavors, Trilogy instructs, and by receiving such ingredients/flavors recipient confirms, that the ingredients/flavors will not be used in connection with the manufacture and distribution of E-Cigarettes or any component thereof.

Disclaimer

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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

Revision Date 03-Jun-2020

materials or in any process, unless specified in the text.

end