



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)** 844TTB  
**Product name** Wild Strawberry Fresh Type, Natural Flavor Blend

**UN/ID No** 1197

**Recommended use of the chemical and restrictions on use**

**Recommended Use** No information available.  
**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**

Carcinogenicity	Category 1A
Flammable liquids	Category 3

**GHS Label elements, including precautionary statements**

**Emergency Overview**

**Danger**

**Hazard Statements**  
 May cause cancer  
 Flammable liquid and vapor

**Appearance** clear                      **Physical state** liquid                      **Aroma** Typical of wild fresh strawberry with green and light ethereal top-notes

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

In case of fire: Use CO2, dry chemical, or foam for extinction

**Precautionary Statements - Storage**

Store locked up  
Store in a well-ventilated place. Keep cool

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

**Other information**

- Harmful to aquatic life with long lasting effects
- Harmful to aquatic life

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS-No	Weight %	Trade Secret
ETHYL ALCOHOL	64-17-5	1-5%	*
ETHYL BUTYRATE	105-54-4	1-5%	*
Trade Secret	Proprietary	1-5%	*
ACETALDEHYDE	75-07-0	<1	*

**4. FIRST AID MEASURES**

**First aid measures for different exposure routes**

- General advice** If symptoms persist, call a physician.
- Eye contact** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
- Skin contact** Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
- Inhalation** Immediate medical attention is not required. If symptoms persist, call a physician. Move to fresh air in case of accidental inhalation of vapors or decomposition products.
- Ingestion** Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician. Do NOT induce vomiting.
- Self-protection of the first aider** Use personal protective equipment.

**Most important symptoms/effects, acute and delayed**

**Main Symptoms** Hives.

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

**Note to physicians** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

**Suitable Extinguishing Media**

Use. Dry chemical. Carbon dioxide CO2. Water spray. Alcohol-resistant foam.

**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**

Keep product and empty container away from heat and sources of ignition. Risk of ignition.

**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**

Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Remove all sources of ignition. Pay attention to flashback. Take precautionary measures against static discharges. Use personal protective equipment.

**Environmental precautions**

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Beware 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**

Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Take precautionary measures against static discharges.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling**

Use only in area provided with appropriate exhaust ventilation. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from heat, sparks and open flame. No smoking. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions**

Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat. Keep in properly labeled containers.

**Incompatible products**

None known based on information supplied.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Guidelines**

This 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 64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900

		(vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m <sup>3</sup>	mg/m <sup>3</sup>
ETHYL ACETATE 141-78-6	TWA: 400 ppm	TWA: 400 ppm TWA: 1400 mg/m <sup>3</sup> (vacated) TWA: 400 ppm (vacated) TWA: 1400 mg/m <sup>3</sup>	IDLH: 2000 ppm TWA: 400 ppm TWA: 1400 mg/m <sup>3</sup>
ACETALDEHYDE 75-07-0	Ceiling: 25 ppm	TWA: 200 ppm TWA: 360 mg/m <sup>3</sup> (vacated) TWA: 100 ppm (vacated) TWA: 180 mg/m <sup>3</sup> (vacated) STEL: 150 ppm (vacated) STEL: 270 mg/m <sup>3</sup>	IDLH: 2000 ppm
ISOAMYL ACETATE 123-92-2	STEL: 100 ppm TWA: 50 ppm	TWA: 100 ppm TWA: 525 mg/m <sup>3</sup> (vacated) TWA: 100 ppm (vacated) TWA: 525 mg/m <sup>3</sup>	IDLH: 1000 ppm TWA: 100 ppm TWA: 525 mg/m <sup>3</sup>
FURFURAL 98-01-1	TWA: 2 ppm S*	TWA: 5 ppm TWA: 20 mg/m <sup>3</sup> (vacated) TWA: 2 ppm (vacated) TWA: 8 mg/m <sup>3</sup> (vacated) S* S*	IDLH: 100 ppm
Trade Secret	TWA: 10 ppm	-	
DIMETHYL SULFIDE 75-18-3	TWA: 10 ppm	-	

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** Tightly fitting safety goggles.

**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** When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Physical and chemical properties**

<b>Physical state</b>	liquid
<b>Appearance</b>	clear
<b>Aroma</b>	Typical of wild fresh strawberry with green and light ethereal top-notes
<b>Color</b>	Pale yellow

<u>Property</u>	<u>Values</u>	<u>Method</u>
<b>pH</b>		No information available
<b>Melting/freezing point</b>		FCC Method
<b>Boiling point/boiling range</b>		FCC Method
<b>Flash Point</b>	47 °C / 116 °F	Closed cup
<b>Evaporation rate</b>	No information available	No information available
<b>Flammability (solid, gas)</b>	No information available	No information available
<b>Flammability Limits in Air</b>		No information available
<b>Upper flammability limit</b>	No information available	
<b>lower flammability limit</b>	No information available	
<b>Vapor pressure mm Hg 20°C</b>		No information available
<b>Vapor density</b>		No information available
<b>Specific Gravity @ 25C</b>	1.0100 - 1.0310	FCC Method
<b>Specific Gravity @ 20C</b>	1.0130 - 1.0340	FCC Method
<b>Refractive Index @ 20C</b>	1.4112 - 1.4412	FCC Method
<b>Water solubility</b>	Practically insoluble	
<b>Solubility in other solvents</b>		No information available
<b>Partition coefficient: n-octanol/water</b>		No information available
<b>Autoignition temperature</b>	No information available	No information available
<b>Decomposition temperature</b>		No information available
<b>Viscosity, kinematic</b>	No information available	No information available
<b>Viscosity, dynamic</b>	No information available	
<b>Explosive properties</b>	No information available	
<b>Oxidizing Properties</b>	No information available	

**Other information**

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

Heat, flames and sparks.

**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
PROPYLENE GLYCOL 57-55-6	20000 mg/kg ( Rat )	20800 mg/kg ( Rabbit )	-
ETHYL ALCOHOL 64-17-5	7060 mg/kg ( Rat )	-	124.7 mg/L ( Rat ) 4 h
ETHYL BUTYRATE 105-54-4	13 g/kg ( Rat )	2 g/kg ( Rabbit )	-
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** No information available.

**Germ Cell Mutagenicity** 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).

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

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** No information available.

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

**Specific target organ systemic toxicity (repeated exposure)** No information available.

**Chronic toxicity** May cause adverse liver effects. Contains a known or suspected reproductive toxin.

**Target Organ Effects** Blood, Central nervous system, Eyes, Liver, Reproductive system, Respiratory system, Skin.

**Aspiration hazard** No information available.

**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**

Harmful to aquatic life with long lasting effects

0.0019% of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

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

**Other adverse effects**

No information available

## 13. DISPOSAL CONSIDERATIONS

**Waste treatment**

<b>Waste Disposal Methods</b>	It must undergo special treatment, e.g. at suitable disposal site, to comply with local regulations.
<b>Contaminated packaging</b>	Do not reuse container.
<b>US EPA Waste Number</b>	D001 U001 U112 U125

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 64-17-5	Toxic Ignitable
ETHYL BUTYRATE 105-54-4	Ignitable
ACETALDEHYDE 75-07-0	Toxic Ignitable

## 14. TRANSPORT INFORMATION

<b>DOT/ADR</b>	Not regulated (If shipped in NON BULK packaging by ground transport)
<b>UN/ID No</b>	1197
<b>Proper shipping name</b>	EXTRACTS, FLAVOURING, LIQUID
<b>Hazard class</b>	3
<b>Packing Group</b>	III
<b>ERG Code</b>	127

**ICAO/IATA**

**UN/ID No** 1197  
**Proper shipping name** EXTRACTS, FLAVOURING, LIQUID  
**Hazard class** 3  
**Packing Group** III

**IMDG / IMO**

**UN/ID No** 1197  
**Proper shipping name** EXTRACTS, FLAVOURING, LIQUID  
**Hazard class** 3  
**Packing Group** III

**15. REGULATORY INFORMATION**

**International Inventories**

**TSCA** not determined  
**DSL/NDL** not determined  
**EINECS/ELINCS** not determined  
**ENCS** not determined  
**IECSC** not determined  
**KECL** not determined  
**PICCS** not determined  
**AICS** not determined

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDL** - 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 Hazard** Yes  
**Chronic Health Hazard** no  
**Fire Hazard** Yes  
**Sudden Release of Pressure Hazard** no  
**Reactive Hazard** no

**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			X

**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 75-07-0	1000 lb		RQ 1000 lb final RQ RQ 454 kg final 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
PROPYLENE GLYCOL 57-55-6	X		X
ETHYL ALCOHOL 64-17-5	X	X	X
ETHYL BUTYRATE 105-54-4	X	X	X
Trade Secret	X		
Trade Secret	X	X	X
DIMETHYL SULFIDE 75-18-3	X	X	X

**U.S. EPA Label information**

**16. OTHER INFORMATION**

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

**Revision Date** 28-Sep-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 materials or in any process, unless specified in the text.

**end**