



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

1.1. Product identifier

Number 599CBD

Manufacturer Apex Flavors, Inc.
1361 Brass Mill Rd
Suite E
Belcamp, MD 21017
410-565-6600

Product name SWEETNESS ENHANCER, NATURAL & ARTIFICIAL (OIL SOLUBLE)
Pure substance/mixture Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Not for direct consumption

1.3. Details of the supplier of the safety data sheet

For further information, please contact:

E-mail Address cpisano@apexflavors.com

1.4. Emergency telephone number

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

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Acute oral toxicity	Category 5
Acute inhalation toxicity - dust/mist	Category 3
Serious eye damage/eye irritation	Category 2
Carcinogenicity	Category 1A
Acute aquatic toxicity	Category 2
Flammable liquids	Category 3

Classification according to EU Directives 67/548/EEC or 1999/45/EC
For the full text of the R-phrases mentioned in this Section, see Section 16

Symbol(s)
Xn - Harmful

R-code(s)
Xn;R21

2.2. Label elements



Signal Word

Danger

Hazard Statements

H303 - May be harmful if swallowed
H331 - Toxic if inhaled
H319 - Causes serious eye irritation
H350 - May cause cancer
H401 - Toxic to aquatic life

H226 - Flammable liquid and vapor

Precautionary Statements

P321 - Specific treatment (see .? on this label)
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
P201 - Obtain special instructions before use
P281 - Use personal protective equipment as required
P308 + P313 - IF exposed or concerned: Get medical advice/ attention
P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

2.3. Other information

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Chemical Name	EC-No	CAS-No	Alternate CAS #	Weight %	Classification according to Directive 67/548/EEC or 1999/45/EC	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
ETHYL ALCOHOL	200-578-6	64-17-5		20-30%	F; R11	Flam. Liq. 2 (H225) Eye Irrit. 1 (H319)	No data available
BENZYL ALCOHOL	202-859-9	100-51-6		5-10%	Xn; R20/22	Acute Tox. 5 (H333) Acute Tox. 4 (H302)	No data available
STRAWBERRY FURANONE	222-908-8	3658-77-3		1-5%	-	Acute Tox. 4 (H302) (EFFA)	No data available
HELIOTROPINE	204-409-7	120-57-0		<1	-	Skin Sens. 1 (H317) (EFFA) Acute Tox. 5 (H303)(EFFA) Aquatic Acute 2 (H401)(EFFA)	No data available
BENZO DIHYDRO PYRONE (Dihydro Coumarin)	Present	119-84-6		<1	-	Skin Sens. 1 (H317) (EFFA) Skin Irrit. 3 (316) (EFFA) Acute Tox. 4 (H302) (EFFA)	No data available

For the full text of the R-phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

4.1. Description of first aid measures

General advice	If symptoms persist, call a physician Do not breathe dust/fume/gas/mist/vapors/spray Do not get in eyes, on skin, or on clothing
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	Consult a physician if necessary. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Ingestion	Rinse mouth. Drink plenty of water. If symptoms persist, call a physician. Do NOT induce vomiting.
Inhalation	Move to fresh air. Call a physician. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.
Self-protection of the first aider	Use personal protective equipment

4.2. Most important symptoms and effects, both acute and delayed

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

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

Extinguishing media which shall not be used for safety reasons

No information available

5.2. Special hazards arising from the substance or mixture

Special Hazard

None

5.3. Advice for firefighters

Special protective equipment for fire-fighters

As in any fire, wear self-contained breathing apparatus and full protective gear

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

See Section 12 for additional Ecological Information

6.2. Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust)

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid contact with skin, eyes and clothing. Use personal protective equipment as required. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children.

7.3 Specific end use(s)

Exposure scenario N/A

Other Guidelines N/A

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

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

Chemical Name	European Union	The United Kingdom	France	Spain	Germany
ETHYL ALCOHOL 64-17-5		STEL: 3000 ppm STEL: 5760 mg/m ³ TWA: 1000 ppm TWA: 1920 mg/m ³	VME: 1000 ppm VME: 1900 mg/m ³ VLCT: 5000 ppm VLCT: 9500 mg/m ³	VLA-ED: 1000 ppm VLA-ED: 1910 mg/m ³	MAK: 500 ppm MAK: 960 mg/m ³ Ceiling / Peak: 1000 ppm Ceiling / Peak: 1920 mg/m ³ Skin TWA: 500 ppm TWA: 960 mg/m ³

Chemical Name	Italy	Portugal	The Netherlands	Finland	Denmark
ETHYL ALCOHOL 64-17-5		TWA: 1000 ppm	Skin STEL: 1900 mg/m ³ TWA: 260 mg/m ³	TWA: 1000 ppm TWA: 1900 mg/m ³ STEL: 1300 ppm STEL: 2500 mg/m ³	TWA: 1000 ppm TWA: 1900 mg/m ³
BENZYL ALCOHOL 100-51-6				TWA: 10 ppm TWA: 45 mg/m ³	

Chemical Name	Austria	Sweden - Occupational Exposure Limits - TLVs (LLVs)	Switzerland	Poland	Norway
ETHYL ALCOHOL 64-17-5	STEL 2000 ppm STEL 3800 mg/m ³ MAK: 1000 ppm MAK: 1900 mg/m ³	500 ppm NGV 1000 mg/m ³ NGV	STEL: 1000 ppm STEL: 1920 mg/m ³ MAK: 500 ppm MAK: 960 mg/m ³	NDS: 1900 mg/m ³	TWA: 500 ppm TWA: 950 mg/m ³ STEL: 625 ppm STEL: 1187.5 mg/m ³
BENZYL ALCOHOL 100-51-6				NDS: 240 mg/m ³	

Component	Ireland
ETHYL ALCOHOL	TWA: 1000 ppm TWA: 1900 mg/m ³

64-17-5 (20-30%)	
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Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available

8.2. Exposure controls

Engineering Controls Ensure adequate ventilation, especially in confined areas

Personal protective equipment

Eye Protection Tightly fitting safety goggles

Hand Protection Protective gloves

Skin and body protection Long sleeved clothing

Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators

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

Environmental Exposure Controls Do not allow material to contaminate ground water system

9. PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

Physical state	liquid	Appearance	liquid
Odor	sweet cotton candy	Color	clear with yellow tint
Property	Values	Method	
pH		No information available	
Melting/freezing point		No information available	
Boiling point/boiling range		FCC Method	
Flash Point	23 °C / 73 °F	Closed cup	
Evaporation rate		FCC Method	
Flammability (solid, gas)		No information available	
Flammability Limits in Air		No information available	
Upper flammability limit			
lower flammability limit			
Vapor pressure mm Hg 20°C		No information available	
Vapor density		No information available	
Relative density		No information available	
Specific Gravity @ 25C	0.9299 - 0.9599	FCC Method	
Specific Gravity @ 20C	0.9329 - 0.9629	FCC Method	
Refractive Index	1.4281 - 1.4581	FCC Method	
Water solubility		No information available	
Partition coefficient: n-octanol/water		No information available	
Autoignition temperature		No information available	
Decomposition temperature		No information available	
Viscosity, dynamic		No information available	
Explosive properties	No information available		
Oxidizing Properties	No information available		

9.2. Other information

VOC Content(%)	39.1
Molecular Weight	No information available

10. STABILITY AND REACTIVITY**10.1. Reactivity****10.2. Chemical stability**

Stable under normal conditions

10.3. Possibility of hazardous reactions**10.4. Conditions to avoid**

Heat, flames and sparks

10.5. Incompatible materials

No materials to be especially mentioned

10.6. Hazardous decomposition products

None under normal use conditions

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity

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

Acute toxicity 1.44% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document (Rev. 1, 2005):

Oral 3,351.00 mg/kg
Dermal 16,135.00 mg/kg

Inhalation
Mist 0.50 mg/l
Vapor 110.00 mg/l

Skin corrosion/irritation No information available
Eye damage/irritation No information available
Sensitization No information available
Germ Cell Mutagenicity No information available
Carcinogenicity No information available

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

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

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

Aspiration hazard No information available

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity effects Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
ETHYL ALCOHOL		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
BENZYL ALCOHOL	35: 3 h Anabaena variabilis mg/L	10: 96 h Lepomis macrochirus mg/L	23: 48 h water flea mg/L EC50

	EC50	LC50 static 460: 96 h Pimephales promelas mg/L LC50 static	
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12.2. Persistence and degradability

No information available

12.3. Bioaccumulative potential

No information available

Chemical Name	log Pow
ETHYL ALCOHOL	-0.32
BENZYL ALCOHOL	1.1

12.4. Mobility in soil

No information available

12.5. Results of PBT and vPvB assessment**12.6. Other adverse effects**

Endocrine Disruptor Information	. ? is a suspected endocrine disruptor		
Chemical Name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
STRAWBERRY FURANONE	Group III Chemical		

13. DISPOSAL CONSIDERATIONS**13.1. Waste treatment methods**

Waste from residues / unused products	Dispose of in accordance with local regulations
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal
Other Information	According to the European Waste Catalogue, Waste Codes are not product specific, but application specific Waste codes should be assigned by the user based on the application for which the product was used

14. TRANSPORT INFORMATION**DOT/ADR**

UN/ID No	1197
Proper shipping name	EXTRACTS, FLAVOURING, LIQUID
Hazard class	3
Packing Group	III
ERG Code	127

IMDG / IMO

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

ICAO/IATA

UN/ID No	1197
Proper shipping name	EXTRACTS, FLAVOURING, LIQUID
Hazard class	3

Packing Group

III

15. REGULATORY INFORMATION

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

WGK Classification

Chemical Name	Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes
ETHYL ALCOHOL 64-17-5	Hazard Class 1
BENZYL ALCOHOL 100-51-6	Hazard Class 1

International Inventories

All of the components in the product are on the following Inventory lists: No information available.

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

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
 DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 AICS - Australian Inventory of Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances

15.2. Chemical safety assessment

16. OTHER INFORMATION

Risk Combination Phrases

R20/22 - Harmful by inhalation and if swallowed

Full text of H-Statements referred to under sections 2 and 3

H333 - May be harmful if inhaled H302 - Harmful if swallowed H317 - May cause an allergic skin reaction H303 - May be harmful if swallowed H401 - Toxic to aquatic life H225 - Highly flammable liquid and vapor H319 - Causes serious eye irritation

Revision Date 01-Apr-2019

Revision Note Not applicable.

Revision# 1

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

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.

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