



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

1.1. Product identifier

Number 723CBD

Manufacturer Apex Flavors, Inc.
1371 Brass Mill Rd
Suite A
Belcamp, MD 21017
(410) 565-6600

Product name GRAPE TYPE FLAVOR, NATURAL & ARTIFICIAL (OIL SOLUBLE)
Pure substance/mixture Mixture

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

Recommended Use No information available

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 dermal toxicity	Category 5
Serious eye damage/eye irritation	Category 2
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

2.2. Label elements

**Signal Word**

Warning

Hazard Statements

H303 - May be harmful if swallowed
 H313 - May be harmful in contact with skin
 H319 - Causes serious eye irritation
 H401 - Toxic to aquatic life

H226 - Flammable liquid and vapor

Precautionary Statements

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
2-Butanone, 4-(4-hydroxyphenyl)-	Present	5471-51-2		5-10%	-	Acute Tox. 4 (H302) (EFFA)	No data available
ETHYL ACETATE	Present	141-78-6		5-10%	F; R11 Xi; R36 R66 R67	Eye Irrit. 1 (H319) (EFFA) Flam. Liq. 2 (H225) (EFFA) Eye Irrit. 1 (H319) (EUH066) Flam. Liq. 2 (H225) STOT SE 3 (H336) Eye Irrit. 2 (H319)	No data available
ACETIC ACID	Present	64-19-7		5-10%	R10 C; R35	Skin Corr. 1A (314) (EFFA) Eye Dam. 1 (H318) (EFFA) Flam. Liq. 3 (H226)(EFFA) Skin Corr. 1A (H314) Eye Dam. 1 (H318) Skin Corr. 1A (H314) Flam. Liq. 3 (H226)	No data available
ETHYL MALTOL	225-582-5	4940-11-8		1-5%	-	Acute Tox. 4 (H302) (EFFA)	No data available

DAMASCENONE	Present	23696-85-7		<1	-	Aquatic Acute 2 (H401) (ECHA) Skin Sens. 1 (H317) (ECHA) Skin Irrit. 3 (316) (ECHA) Aquatic Chronic 2 (H411) (ECHA)	No data available
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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

Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Ingestion	Clean mouth with water and drink afterwards plenty of water.
Inhalation	Move to fresh air.

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 further leakage or spillage if safe to do so.

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

Ensure adequate ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

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 ACETATE 141-78-6		STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm 1400 mg/m ³	TWA: 400 ppm 1460 mg/m ³	TWA: 400 ppm 1500 mg/m ³ Ceiling / Peak: 800 ppm Ceiling / Peak: 3000 mg/m ³
ACETIC ACID 64-19-7	TWA 10 ppm TWA 25 mg/m ³		STEL: 10 ppm STEL: 25 mg/m ³	STEL: 15 ppm STEL: 37 mg/m ³ TWA: 10 ppm TWA: 25 mg/m ³	TWA: 10 ppm TWA: 25 mg/m ³ Ceiling / Peak: 20 ppm Ceiling / Peak: 50 mg/m ³

Chemical Name	Italy	Portugal	The Netherlands	Finland	Denmark
ETHYL ACETATE 141-78-6		TWA: 400 ppm		TWA: 300 ppm 1100 mg/m ³ STEL: 500 ppm 1800 mg/m ³	TWA: 150 ppm 540 mg/m ³
ACETIC ACID 64-19-7		STEL: 15 ppm TWA: 10 ppm TWA: 25 mg/m ³	TWA: 25 mg/m ³	TWA: 5 ppm TWA: 13 mg/m ³ STEL: 10 ppm STEL: 25 mg/m ³	TWA: 10 ppm TWA: 25 mg/m ³

Chemical Name	Austria	Sweden - Occupational Exposure Limits - TLVs (LLVs)	Switzerland	Poland	Norway
ETHYL ACETATE 141-78-6	STEL 600 ppm 2100 mg/m ³ TWA: 300 ppm 1050 mg/m ³	150 ppm NGV 500 mg/m ³ NGV	STEL: 800 ppm 2800 mg/m ³ TWA: 400 ppm 1400 mg/m ³	STEL: 600 mg/m ³ TWA: 200 mg/m ³	TWA: 150 ppm 550 mg/m ³ STEL: 187.5 ppm 687.5 mg/m ³
ACETIC ACID 64-19-7	STEL 20 ppm 50 mg/m ³ TWA: 10 ppm 25 mg/m ³	5 ppm NGV 13 mg/m ³ NGV	STEL: 20 ppm 50 mg/m ³ TWA: 10 ppm 25 mg/m ³	STEL: 30 mg/m ³ TWA: 15 mg/m ³	TWA: 10 ppm 25 mg/m ³ STEL: 20 ppm 37.5 mg/m ³

Component	Ireland

ETHYL ACETATE 141-78-6 (5-10%)	TWA: 200 ppm STEL: 400 ppm
ACETIC ACID 64-19-7 (5-10%)	TWA: 10 ppm TWA: 25 mg/m ³ STEL: 15 ppm STEL: 37 mg/m ³

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 No information available

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

Physical state	liquid	Appearance	clear
Odor	typical of grape	Color	amber

<u>Property</u>	<u>Values</u>	<u>Method</u>
pH		No information available
Melting/freezing point		No information available
Boiling point/boiling range		FCC Method
Flash Point	28 °C / 82 °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	1.0529 - 1.0829	FCC Method
Specific Gravity @ 20C	1.0559 - 1.0859	FCC Method
Refractive Index	1.4913 - 1.5213	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(%)	32.7000000476837
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	1.22% 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	2,485.00 mg/kg
Dermal	2,279.00 mg/kg
Mist	77,360.53 mg/l

Chemical Name	Oral LD50	Dermal LD50	LC50 Inhalation
ETHYL ACETATE	5620 mg/kg (Rat)	20 mL/kg (Rabbit)	
ACETIC ACID	3310 mg/kg (Rat)	1060 mg/kg (Rabbit)	11.4 mg/L (Rat) 4 h
ETHYL MALTOL	1150 mg/kg (Rat)	5 g/kg (Rabbit)	

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 Eyes Respiratory system Skin Teeth

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 ACETATE	3300: 48 h Desmodesmus subspicatus mg/L EC50	220 - 250: 96 h Pimephales promelas mg/L LC50 flow-through 484: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 352 - 500: 96 h Oncorhynchus mykiss mg/L LC50 semi-static	560: 48 h Daphnia magna mg/L EC50 Static

ACETIC ACID		79: 96 h Pimephales promelas mg/L LC50 static 75: 96 h Lepomis macrochirus mg/L LC50 static	65: 48 h Daphnia magna mg/L EC50 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 ACETATE	0.6
ACETIC ACID	-0.31

12.4. Mobility in soil

No information available

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

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

14. TRANSPORT INFORMATION

DOT

IMDG / IMO

Proper shipping name FLAMMABLE LIQUID, N.O.S. (ETHYL BUTYRATE, ETHYL ACETATE)
Hazard class 3
UN/ID No 1993
Packing Group III

ICAO/IATA

UN/ID No 1993
Proper shipping name FLAMMABLE LIQUID, N.O.S. (ETHYL BUTYRATE, ETHYL ACETATE)
Hazard class 3
Packing Group III
ERG Code 128

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 ACETATE 141-78-6	Hazard Class 1
ACETIC ACID 64-19-7	Hazard Class 1

International Inventories

All of the components in the product are on the following Inventory lists: United States of America (TSCA), Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Australia (AICS), China (IECSC), Japan (ENCS), Philippines (PICCS).

TSCA	Complies
EINECS/ELINCS	Complies
DSL/NDSL	Complies
PICCS	Complies
ENCS	Complies
IECSC	Complies
AICS	Complies
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/NDSL** - 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

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

H319 - Causes serious eye irritation H225 - Highly flammable liquid and vapor H336 - May cause drowsiness or dizziness H401 - Toxic to aquatic life H317 - May cause an allergic skin reaction H411 - Toxic to aquatic life with long lasting effects H302 - Harmful if swallowed H318 - Causes serious eye damage H226 - Flammable liquid and vapor H314 - Causes severe skin burns and eye damage EUH066 - Repeated exposure may cause skin dryness or cracking

Revision Date	23-Sep-2015
Revision Note	Not applicable.
Revision#	1

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

WARNING/DISCLAIMER:

Apex Flavors, Inc.'s products are sold exclusively for use in food and drink for human consumption. These products have not been tested, nor have they been deemed safe, for inhalation or use in electronic smoking devices, electronic nicotine delivery systems, and electronic cigarettes or similar devices (collectively "E-Cigarettes"). In supplying this product(s), Apex Flavors, Inc. instructs, and purchasing recipient confirms, that this product(s) will not be used in connection with the manufacture and distribution of E-Cigarettes or any component thereof. Recipients of our products that use them outside of their intended use of food or drink do so at their own risk and without warranty, either expressed or implied, from Apex Flavors, Inc. or its suppliers. The user assumes all liability for loss, injury, damage, or expense resulting from such uses.

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