



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

1.1. Product identifier

Number 749CBD

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

Product name COFFEE FLAVOR, EXPRESSO TYPE, NATURAL AND 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 4
Acute inhalation toxicity - dust/mist	Category 2
Serious eye damage/eye irritation	Category 2A
Flammable liquids	Category 4

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
H312 - Harmful in contact with skin
H319 - Causes serious eye irritation

H227 - Combustible liquid

Precautionary Statements

P321 - Specific treatment (see supplemental instructions on the administration of antidotes on this label)
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P320 - Specific treatment is urgent (see .? on this label)
P201 - Obtain special instructions before use
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
P308 + P313 - IF exposed or concerned: Get medical advice/ attention
P403 + P235 - Store in a well-ventilated place. Keep cool
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P280 - Wear protective gloves/ eye protection/ face protection

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		5-10%	F; R11	Flam. Liq. 2 (H225) Flam. Liq. 2 (H225)	No data available
BENZYL ALCOHOL	202-859-9	100-51-6		1-5%	Xn; R20/22	Acute Tox. 5 (H333) Acute Tox. 4 (H302)	No data available
ACETIC ACID	Present	64-19-7		1-5%	R10 C; R35	Skin Corr. 1A (314) (EPPA) Eye Dam. 1 (H318) (EPPA) Flam. Liq. 3 (H226)(EPPA) Skin Corr. 1A (H314) Eye Dam. 1 (H318) Skin Corr. 1A (H314) Flam. Liq. 3 (H226)	No data available
ACETALDEHYDE	200-836-8	75-07-0		<1	F+; R12 Xi; R36/37 Carc.Cat.3; R40	Carc. 2 (H351) (EPPA) Eye Irrit. 1 (H319) (EPPA) Flam. Liq. 1 (H224) (EPPA) Flam. Liq. 1 (H224) STOT SE 3 (H335) Carc. 2 (H351) Eye Irrit. 2 (H319)	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

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

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

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

See Section 12 for additional Ecological Information

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

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

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).

7.2. Conditions for safe storage, including any incompatibilities

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

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
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
ACETALDEHYDE 75-07-0		STEL: 50 ppm STEL: 92 mg/m ³ TWA: 20 ppm TWA: 37 mg/m ³	TWA: 100 ppm TWA: 180 mg/m ³	STEL: 25 ppm STEL: 46 mg/m ³	TWA: 50 ppm TWA: 91 mg/m ³ Ceiling / Peak: 50 ppm Ceiling / Peak: 91 mg/m ³ Skin

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	
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
ACETALDEHYDE 75-07-0		Ceiling: 25 ppm	STEL: 92 mg/m ³ TWA: 37 mg/m ³	STEL: 25 ppm STEL: 46 mg/m ³	Ceiling: 25 ppm Ceiling: 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	
ACETIC ACID 64-19-7	STEL 20 ppm STEL 50 mg/m ³ TWA: 10 ppm TWA: 25 mg/m ³	5 ppm NGV 13 mg/m ³ NGV	STEL: 20 ppm STEL: 50 mg/m ³ TWA: 10 ppm TWA: 25 mg/m ³	STEL: 30 mg/m ³ TWA: 15 mg/m ³	TWA: 10 ppm TWA: 25 mg/m ³ STEL: 20 ppm STEL: 37.5 mg/m ³
ACETALDEHYDE 75-07-0	STEL 50 ppm STEL 90 mg/m ³ TWA: 50 ppm TWA: 90 mg/m ³ Ceiling 50 ppm Ceiling 90 mg/m ³	25 ppm NGV 45 mg/m ³ NGV	STEL: 50 ppm STEL: 90 mg/m ³ TWA: 90 mg/m ³ TWA: 50 ppm	: 45 mg/m ³ TWA: 5 mg/m ³	TWA: 25 ppm TWA: 45 mg/m ³ STEL: 37.5 ppm STEL: 67.5 mg/m ³

Component	Ireland
Ethyl alcohol 64-17-5 (5-10%)	TWA: 1000 ppm TWA: 1900 mg/m ³
ACETIC ACID 64-19-7 (1-5%)	TWA: 10 ppm TWA: 25 mg/m ³ STEL: 15 ppm STEL: 37 mg/m ³
ACETALDEHYDE 75-07-0 (<1)	TWA: 25 ppm TWA: 45 mg/m ³ STEL: 25 ppm STEL: 45 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 Chemical resistant apron Antistatic boots Impervious gloves
- Respiratory protection** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators

General Hygiene Considerations When using, do not eat, drink or smoke Provide regular cleaning of equipment, work area and clothing

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 to hazy
Odor	coffee	Color	light yellow

<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	64 °C / 148 °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	0.924 - 0.944	FCC Method
Specific Gravity @ 20C	0.927 - 0.947	FCC Method
Refractive Index		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(%)	17.5500000081956
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 100% 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 4,518.00 mg/kg
Dermal 1,662.00 mg/kg
Mist 0.17 mg/l
Vapor 11.00 mg/l

Chemical Name	Oral LD50	Dermal LD50	LC50 Inhalation
Ethyl alcohol	7060 mg/kg (Rat)		124.7 mg/L (Rat) 4 h
BENZYL ALCOHOL	1230 mg/kg (Rat)	2000 mg/kg (Rabbit)	8.8 mg/L (Rat) 4 h
ACETIC ACID	3310 mg/kg (Rat)	1060 mg/kg (Rabbit)	11.4 mg/L (Rat) 4 h
ACETALDEHYDE	1930 mg/kg (Rat)		

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 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 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 EC50	10: 96 h Lepomis macrochirus mg/L LC50 static 460: 96 h Pimephales promelas mg/L LC50 static	23: 48 h water flea mg/L EC50
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
ACETALDEHYDE	237 - 249: 120 h Nitzschia linearis mg/L EC50	28.0 - 34.0: 96 h Pimephales promelas mg/L LC50 flow-through 53: 96 h Lepomis macrochirus mg/L LC50 static 1.8 - 2.4: 96 h Oncorhynchus mykiss mg/L LC50 static 39.8 - 46.8: 96 h Pimephales promelas mg/L LC50 static	3.64 - 6.15: 48 h Daphnia magna mg/L EC50 Static 48.3: 48 h Daphnia magna mg/L EC50

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
ACETIC ACID	-0.31
ACETALDEHYDE	0.5

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

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 Not regulated

IMDG / IMO Not regulated

ICAO/IATA Not regulated

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
ACETIC ACID 64-19-7	Hazard Class 1
ACETALDEHYDE 75-07-0	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/NDSL	-
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/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

H333 - May be harmful if inhaled H302 - Harmful if swallowed H225 - Highly flammable liquid and vapor H318 - Causes serious eye damage H226 - Flammable liquid and vapor H314 - Causes severe skin burns and eye damage H351 - Suspected of causing cancer if inhaled H319 - Causes serious eye irritation H224 - Extremely flammable liquid and vapor H335 - May cause respiratory irritation

Revision Date 04-Mar-2016

Revision Note Not applicable.

Revision# 1.01

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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