



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

### 1.1. Product identifier

**Number** 708CBD

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

**Product name** CHOCOLATE MILK TYPE FLAVOR, 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** 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 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

### 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

H227 - Combustible liquid

**Precautionary Statements**

P321 - Specific treatment (see .? on this label)

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

P403 + P235 - Store in a well-ventilated place. Keep cool

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

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
BENZYL ALCOHOL	202-859-9	100-51-6		5-10%	Xn; R20/22	Acute Tox. 5 (H333) Acute Tox. 4 (H302)	No data available
ISOVALERALDEHYDE	Present	590-86-3		<1	-	Aquatic Acute 2 (H401) (EFFA) Skin Sens. 1 (H317) (EFFA) Eye Irrit. 1 (H319) (EFFA) Skin Irrit. 3 (316) (EFFA) Flam. Liq. 2 (H225) (EFFA) Acute Tox. 5 (H303)(EFFA)	No data available
5-METHYL-2-PHENYL-2-HEXENAL(COCAL)	Present	21834-92-4		<1	-	Skin Sens. 1 (H317) (EFFA)	No data available
METHYL N-AMYL KETONE FCC (2-Heptanone)	Present	110-43-0		<1	R10 Xn; R20/22	Acute Tox. 4 (H302) Acute Tox. 4 (H302) (EFFA) Flam. Liq. 3 (H226) (EFFA) Acute Tox. 4 (H332)(EFFA) Flam. Liq. 3 (H226) Acute Tox. 4 (H332)	No data available
DIMETHYL SULFIDE	200-846-2	75-18-3		<1	-	Skin Irrit. 3 (316) (EFFA) Acute Tox. 3 (H301) (EFFA) Flam. Liq. 2 (H225) (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

<b>Eye contact</b>	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
<b>Skin contact</b>	Consult a physician if necessary. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
<b>Ingestion</b>	Rinse mouth. Drink plenty of water. If symptoms persist, call a physician. Do NOT induce vomiting.
<b>Inhalation</b>	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.
<b>Self-protection of the first aider</b>	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
ISOVALERALDEHYDE 590-86-3					TWA: 10 ppm TWA: 39 mg/m <sup>3</sup>
METHYL N-AMYL KETONE FCC (2-Heptanone) 110-43-0	S* TWA 50 ppm TWA 238 mg/m <sup>3</sup> STEL 100 ppm STEL 475 mg/m <sup>3</sup>	STEL: 100 ppm STEL: 475 mg/m <sup>3</sup> TWA: 50 ppm TWA: 237 mg/m <sup>3</sup> Skin	TWA: 50 ppm TWA: 238 mg/m <sup>3</sup> STEL: 100 ppm STEL: 475 mg/m <sup>3</sup>	S* STEL: 100 ppm STEL: 474 mg/m <sup>3</sup> TWA: 50 ppm TWA: 237 mg/m <sup>3</sup>	TWA: 238 mg/m <sup>3</sup>
DIMETHYL SULFIDE 75-18-3				VLA-ED: 10 ppm	

Chemical Name	Italy	Portugal	The Netherlands	Finland	Denmark
BENZYL ALCOHOL 100-51-6				TWA: 10 ppm TWA: 45 mg/m <sup>3</sup>	
METHYL N-AMYL KETONE FCC (2-Heptanone) 110-43-0	TWA: 50 ppm TWA: 238 mg/m <sup>3</sup> STEL: 100 ppm STEL: 475 mg/m <sup>3</sup> Skin	TWA: 50 ppm	TWA: 233 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 240 mg/m <sup>3</sup> STEL: 75 ppm STEL: 360 mg/m <sup>3</sup> Skin	TWA: 50 ppm TWA: 238 mg/m <sup>3</sup> Skin
DIMETHYL SULFIDE 75-18-3		TWA: 10 ppm			

Chemical Name	Austria	Sweden - Occupational Exposure Limits - TLVs (LLVs)	Switzerland	Poland	Norway
BENZYL ALCOHOL 100-51-6				NDS: 240 mg/m <sup>3</sup>	
ISOVALERALDEHYDE 590-86-3	STEL 10 ppm STEL 39 mg/m <sup>3</sup> TWA: 10 ppm TWA: 39 mg/m <sup>3</sup> Ceiling 10 ppm Ceiling 39 mg/m <sup>3</sup>				
METHYL N-AMYL KETONE FCC (2-Heptanone) 110-43-0	Skin STEL 100 ppm STEL 473 mg/m <sup>3</sup> TWA: 50 ppm TWA: 237 mg/m <sup>3</sup>	25 ppm NGV 120 mg/m <sup>3</sup> NGV	TWA: 50 ppm TWA: 235 mg/m <sup>3</sup>	STEL: 475 mg/m <sup>3</sup> TWA: 238 mg/m <sup>3</sup>	TWA: 25 ppm TWA: 115 mg/m <sup>3</sup> Skin STEL: 37.5 ppm STEL: 143.75 mg/m <sup>3</sup>
DIMETHYL SULFIDE 75-18-3		1 ppm NGV			

<b>Component</b>	<b>Ireland</b>
METHYL N-AMYL KETONE FCC (2-Heptanone) 110-43-0 (<1)	TWA: 50 ppm TWA: 238 mg/m <sup>3</sup> STEL: 100 ppm STEL: 475 mg/m <sup>3</sup> Skin
DIMETHYL SULFIDE 75-18-3 (<1)	TWA: 20 ppm

**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

<b>Physical state</b>	liquid	<b>Appearance</b>	clear
<b>Odor</b>	milk chocolate	<b>Color</b>	Pale yellow
<b>Property</b>	<b>Values</b>	<b>Method</b>	
pH		No information available	
Melting/freezing point		No information available	
Boiling point/boiling range		FCC Method	
Flash Point	93 °C / 200 °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	0.9850 - 1.0150	FCC Method	
Specific Gravity @ 20C	0.988 - 1.018	FCC Method	
Refractive Index	1.4550 - 1.4850	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	
<b>Explosive properties</b>	No information available		
<b>Oxidizing Properties</b>	No information available		

### 9.2. Other information

VOC Content(%)	8.45
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**

<b>Inhalation</b>	There is no data available for this product
<b>Eye contact</b>	There is no data available for this product
<b>Skin contact</b>	There is no data available for this product
<b>Ingestion</b>	There is no data available for this product
<b>Acute toxicity</b>	0.587% 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):

<b>Oral</b>	3,812.00 mg/kg
<b>Dermal</b>	12,506.00 mg/kg

<b><u>Inhalation</u></b>	
<b>Mist</b>	0.63 mg/l
<b>Vapor</b>	138.00 mg/l

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

<b>Specific target organ systemic toxicity (single exposure)</b>	No information available
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<b>Specific target organ systemic toxicity (repeated exposure)</b>	No information available
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<b>Target Organ Effects</b>	No information available
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<b>Aspiration hazard</b>	No information available
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## 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity

<b>Ecotoxicity effects</b>	Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants
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Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
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
ISOVALERALDEHYDE	80: 72 h Desmodemus subspicatus mg/L EC50 78: 96 h Desmodemus subspicatus mg/L EC50	2.98 - 3.54: 96 h Pimephales promelas mg/L LC50 flow-through 53: 96 h Leuciscus idus mg/L LC50 static	177: 48 h Daphnia magna mg/L EC50

METHYL N-AMYL KETONE FCC (2-Heptanone)		126 - 137: 96 h Pimephales promelas mg/L LC50 flow-through	
DIMETHYL SULFIDE			23: 48 h Daphnia pulex mg/L EC50

**12.2. Persistence and degradability**

No information available

**12.3. Bioaccumulative potential**

No information available

Chemical Name	log Pow
BENZYL ALCOHOL	1.1
ISOVALERALDEHYDE	1.31
METHYL N-AMYL KETONE FCC (2-Heptanone)	1.98

**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**

<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal
<b>Other Information</b>	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**

<b>DOT/ADR</b>	Not regulated
<b>IMDG / IMO</b>	Not regulated
<b>ICAO/IATA</b>	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
BENZYL ALCOHOL 100-51-6	Hazard Class 1
ISOVALERALDEHYDE 590-86-3	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**

**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 H226 - Flammable liquid and vapor H332 - Harmful if inhaled H317 - May cause an allergic skin reaction H401 - Toxic to aquatic life H319 - Causes serious eye irritation H225 - Highly flammable liquid and vapor H303 - May be harmful if swallowed H301 - Toxic if swallowed

Revision Date 03-Jan-2019

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.

**Disclaimer**

Food ingredients that are safe to be consumed in food products may pose hazards if not handled properly. This product is intended to be used in food products and, not intended to be consumed in its present form. The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

