



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

1.1. Product identifier

Number 731

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

Product name CHOCOLATE TYPE, NATURAL FLAVOR BLEND (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

Serious eye damage/eye irritation	Category 2A
Carcinogenicity	Category 1A
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

R-code(s)

R10

2.2. Label elements



Signal Word

Danger

Hazard Statements

H319 - Causes serious eye irritation

H350 - May cause cancer

H226 - Flammable liquid and vapor

Precautionary Statements

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		15-20%	F; R11	Flam. Liq. 2 (H225) Eye Irrit. 1 (H319)	No data available
ISOVALERALDEHYD E	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
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	Immediate medical attention is required Show this material safety data sheet to the doctor in attendance. 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	Wash off immediately with plenty of water. 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	Remove all sources of ignition 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

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

See Section 12 for additional Ecological Information

6.2. 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.

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

To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Ensure adequate ventilation. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Use only in an area containing flame proof equipment. Use only in area provided with appropriate exhaust ventilation. 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 in properly labeled containers. Keep tightly closed in a dry and cool place. Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat.

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
ISOVALERALDEHYDE 590-86-3					TWA: 10 ppm TWA: 39 mg/m ³
METHYL N-AMYL KETONE FCC (2-Heptanone) 110-43-0	S* TWA 50 ppm TWA 238 mg/m ³ STEL 100 ppm STEL 475 mg/m ³	STEL: 100 ppm STEL: 475 mg/m ³ TWA: 50 ppm TWA: 237 mg/m ³ Skin	TWA: 50 ppm TWA: 238 mg/m ³ STEL: 100 ppm STEL: 475 mg/m ³	S* STEL: 100 ppm STEL: 474 mg/m ³ TWA: 50 ppm TWA: 237 mg/m ³	TWA: 238 mg/m ³
DIMETHYL SULFIDE 75-18-3				VLA-ED: 10 ppm	

Chemical Name	Italy	Portugal	The Netherlands	Finland	Denmark
ETHYL ALCOHOL 64-17-5		TWA: 1000 ppm	Skin STEL: 1900 mg/m ³	TWA: 1000 ppm TWA: 1900 mg/m ³	TWA: 1000 ppm TWA: 1900 mg/m ³

			TWA: 260 mg/m ³	STEL: 1300 ppm STEL: 2500 mg/m ³	
METHYL N-AMYL KETONE FCC (2-Heptanone) 110-43-0	TWA: 50 ppm TWA: 238 mg/m ³ STEL: 100 ppm STEL: 475 mg/m ³ Skin	TWA: 50 ppm	TWA: 233 mg/m ³	TWA: 50 ppm TWA: 240 mg/m ³ STEL: 75 ppm STEL: 360 mg/m ³ Skin	TWA: 50 ppm TWA: 238 mg/m ³ Skin
DIMETHYL SULFIDE 75-18-3		TWA: 10 ppm			

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
ISOVALERALDEHYDE 590-86-3	STEL 10 ppm STEL 39 mg/m ³ TWA: 10 ppm TWA: 39 mg/m ³ Ceiling 10 ppm Ceiling 39 mg/m ³				
METHYL N-AMYL KETONE FCC (2-Heptanone) 110-43-0	Skin STEL 100 ppm STEL 473 mg/m ³ TWA: 50 ppm TWA: 237 mg/m ³	25 ppm NGV 120 mg/m ³ NGV	TWA: 50 ppm TWA: 235 mg/m ³	STEL: 475 mg/m ³ TWA: 238 mg/m ³	TWA: 25 ppm TWA: 115 mg/m ³ Skin STEL: 37.5 ppm STEL: 143.75 mg/m ³
DIMETHYL SULFIDE 75-18-3		1 ppm NGV			

Component	Ireland
ETHYL ALCOHOL 64-17-5 (15-20%)	TWA: 1000 ppm TWA: 1900 mg/m ³
METHYL N-AMYL KETONE FCC (2-Heptanone) 110-43-0 (<1)	TWA: 50 ppm TWA: 238 mg/m ³ STEL: 100 ppm STEL: 475 mg/m ³ 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** Antistatic boots Impervious gloves Wear fire/ flame resistant/ retardant clothing Long sleeved clothing Chemical resistant apron
- 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 Odor	liquid milk chocolate	Appearance Color	clear light yellow																																																																							
<table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;"><u>Property</u></th> <th style="text-align: left;"><u>Values</u></th> <th style="text-align: left;"><u>Method</u></th> </tr> </thead> <tbody> <tr> <td>pH</td> <td></td> <td>No information available</td> </tr> <tr> <td>Melting/freezing point</td> <td></td> <td>No information available</td> </tr> <tr> <td>Boiling point/boiling range</td> <td></td> <td>FCC Method</td> </tr> <tr> <td>Flash Point</td> <td>52 °C / 126 °F</td> <td>Closed cup</td> </tr> <tr> <td>Evaporation rate</td> <td></td> <td>FCC Method</td> </tr> <tr> <td>Flammability (solid, gas)</td> <td></td> <td>No information available</td> </tr> <tr> <td>Flammability Limits in Air</td> <td></td> <td>No information available</td> </tr> <tr> <td> Upper flammability limit</td> <td></td> <td></td> </tr> <tr> <td> lower flammability limit</td> <td></td> <td></td> </tr> <tr> <td>Vapor pressure mm Hg 20°C</td> <td></td> <td>No information available</td> </tr> <tr> <td>Vapor density</td> <td></td> <td>No information available</td> </tr> <tr> <td>Relative density</td> <td></td> <td>No information available</td> </tr> <tr> <td>Specific Gravity @ 25C</td> <td>0.9221 - 0.9521</td> <td>FCC Method</td> </tr> <tr> <td>Specific Gravity @ 20C</td> <td>0.9251 - 0.9551</td> <td>FCC Method</td> </tr> <tr> <td>Refractive Index</td> <td>1.4255 - 1.4555</td> <td>FCC Method</td> </tr> <tr> <td>Water solubility</td> <td></td> <td>No information available</td> </tr> <tr> <td>Partition coefficient: n-octanol/water</td> <td></td> <td>No information available</td> </tr> <tr> <td>Autoignition temperature</td> <td></td> <td>No information available</td> </tr> <tr> <td>Decomposition temperature</td> <td></td> <td>No information available</td> </tr> <tr> <td>Viscosity, dynamic</td> <td></td> <td>No information available</td> </tr> <tr> <td> </td> <td></td> <td></td> </tr> <tr> <td>Explosive properties</td> <td>No information available</td> <td></td> </tr> <tr> <td>Oxidizing Properties</td> <td>No information available</td> <td></td> </tr> </tbody> </table>		<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	52 °C / 126 °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	0.9221 - 0.9521	FCC Method	Specific Gravity @ 20C	0.9251 - 0.9551	FCC Method	Refractive Index	1.4255 - 1.4555	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		
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9.2. Other information

VOC Content(%)	17.966
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	0.297% 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	5,132.00 mg/kg
Dermal	83,500.00 mg/kg

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
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Specific target organ systemic toxicity (repeated exposure)	No information available
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Target Organ Effects Blood Central nervous system Eyes Liver Reproductive system Respiratory system Skin

Aspiration hazard	No information available
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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
ISOVALERALDEHYDE	80: 72 h Desmodesmus subspicatus mg/L EC50 78: 96 h Desmodesmus 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
ETHYL ALCOHOL	-0.32
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

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/ADR Not regulated (If shipped in NON BULK packaging by ground transport)
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
ISOVALERALDEHYDE 590-86-3	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), Philippines (PICCS).

TSCA	Complies
EINECS/ELINCS	Complies
DSL/NDSL	Complies
PICCS	Complies
ENCS	-
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

H302 - Harmful if swallowed H226 - Flammable liquid and vapor H332 - Harmful if inhaled H401 - Toxic to aquatic life H317 - May cause an allergic skin reaction H319 - Causes serious eye irritation H225 - Highly flammable liquid and vapor H303 - May be harmful if swallowed H301 - Toxic if swallowed

Revision Date	24-Feb-2026
Revision Note	Not applicable.
Revision#	1.02

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.

Disclaimer

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.