



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

1.1. Product identifier

Number 457

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

Product name STRAWBERRY FRESH TYPE, NATURAL FLAVOR BLEND
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

| | |
|------------------------|-------------|
| Carcinogenicity | Category 1A |
| Acute aquatic toxicity | Category 3 |
| 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

H350 - May cause cancer

H402 - Harmful to aquatic life

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 |
|------------------|-----------|----------|-----------------|----------|--|---|---------------------------|
| PROPYLENE GLYCOL | 200-338-0 | 57-55-6 | | 50-90% | - | No data available | No data available |
| ETHYL ALCOHOL | 200-578-6 | 64-17-5 | | 1-5% | F; R11 | Flam. Liq. 2 (H225) Eye Irrit. 1 (H319) | No data available |
| ETHYL ACETATE | Present | 141-78-6 | | <1 | 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 |
| ACETALDEHYDE | 200-836-8 | 75-07-0 | | <1 | F+; R12 Xi; R36/37 Carc.Cat.3; R40 | Carc. 2 (H351) (EFFA) Eye Irrit. 1 (H319) (EFFA) Flam. Liq. 1 (H224) (EFFA) Flam. Liq. 1 (H224) STOT SE 3 (H335) Carc. 2 (H351) Eye Irrit. 2 (H319) | No data available |
| ISOAMYL ACETATE | Present | 123-92-2 | | <1 | R10 R66 | Aquatic Acute 3 (H402) (EFFA) | No data available |

| | | | | | | (EUH066) Flam. Liq. 3 (H226) | |
|------------------|-----------|----------|--|----|---|--|-------------------|
| FURFURAL | Present | 98-01-1 | | <1 | Xn; R21 T; R23/25 Xi; R36/37/38 Carc.Cat.3; R40 | Acute Tox. 3 (H301) Carc. 2 (H351) (EFA) Eye Irrit. 1 (H319) (EFA) Skin Irrit. 2 (315) (EFA) Acute Tox. 3 (H301) (EFA) Acute Tox. 4 (H312)(EFA) Flam. Liq. 4 (H227)(EFA) Acute Tox. 3 (H331)(EFA) Carc. 2 (H351) Eye Irrit. 1 (H319) Skin Irrit. 2 (H315) Acute Tox. 3 (H301) Acute Tox. 4 (H312) Acute Tox. 3 (H331) Acute Tox. 4 (H312) Skin Irrit. 2 (H315) STOT SE 3 (H335) Carc. 2 (H351) Acute Tox. 3 (H331) Eye Irrit. 2 (H319) | No data available |
| BENZYL ACETATE | Present | 140-11-4 | | <1 | - | Aquatic Acute 2 (H401) (EFA) Skin Irrit. 3 (316) (EFA) Acute Tox. 5 (H303)(EFA) Flam. Liq. 4 (H227)(EFA) Aquatic Acute 2 (H401) Skin Irrit. 3 (H316) Acute Tox. 5 (H303) | No data available |
| DIMETHYL SULFIDE | 200-846-2 | 75-18-3 | | <1 | - | Skin Irrit. 3 (316) (EFA) Acute Tox. 3 (H301) (EFA) Flam. Liq. 2 (H225) (EFA) | 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. |
| Eye contact | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. |
| Skin contact | Wash off immediately with plenty of water. |
| Ingestion | Clean mouth with water and drink afterwards plenty of water. |
| Inhalation | Move to fresh air. |
| Self-protection of the first aider | Remove all sources of ignition |

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

Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation.

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

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. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded.

7.2. Conditions for safe storage, including any incompatibilities

Keep tightly closed in a dry and cool place. 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 |
|-----------------------------|----------------|---|--------|-------|---------|
| PROPYLENE GLYCOL 57-55-6 | | STEL: 450 ppm STEL: 1422 mg/m ³ STEL: 30 | | | |

| | | | | | |
|-----------------------------|---|--|--|---|---|
| | | mg/m ³ TWA: 150 ppm TWA: 474 mg/m ³ TWA: 10 mg/m ³ | | | |
| 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 |
| ETHYL ACETATE 141-78-6 | | STEL: 400 ppm TWA: 200 ppm | TWA: 400 ppm TWA: 1400 mg/m ³ | TWA: 400 ppm TWA: 1460 mg/m ³ | TWA: 400 ppm TWA: 1500 mg/m ³ Ceiling / Peak: 800 ppm Ceiling / Peak: 3000 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 |
| ISOAMYL ACETATE 123-92-2 | TWA 50 ppm TWA 270 mg/m ³ STEL 100 ppm STEL 540 mg/m ³ | TWA: 50 ppm TWA: 270 mg/m ³ | TWA: 50 ppm TWA: 270 mg/m ³ STEL: 100 ppm STEL: 540 mg/m ³ | STEL: 100 ppm STEL: 540 mg/m ³ TWA: 50 ppm TWA: 270 mg/m ³ | TWA: 50 ppm TWA: 270 mg/m ³ Ceiling / Peak: 50 ppm Ceiling / Peak: 270 mg/m ³ |
| FURFURAL 98-01-1 | | STEL: 5 ppm STEL: 20 mg/m ³ TWA: 2 ppm TWA: 8 mg/m ³ Skin | STEL: 2 ppm STEL: 8 mg/m ³ | S* TWA: 2 ppm TWA: 8 mg/m ³ | Skin |
| BENZYL ACETATE 140-11-4 | | | | TWA: 10 ppm TWA: 62 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: 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 |
| ETHYL ACETATE 141-78-6 | | TWA: 400 ppm | | TWA: 300 ppm TWA: 1100 mg/m ³ STEL: 500 ppm STEL: 1800 mg/m ³ | TWA: 150 ppm TWA: 540 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 |
| ISOAMYL ACETATE 123-92-2 | TWA: 50 ppm TWA: 270 mg/m ³ STEL: 100 ppm STEL: 540 mg/m ³ | STEL: 100 ppm STEL: 540 mg/m ³ TWA: 50 ppm | STEL: 530 mg/m ³ | TWA: 50 ppm TWA: 270 mg/m ³ STEL: 100 ppm STEL: 540 mg/m ³ | TWA: 50 ppm TWA: 271 mg/m ³ |
| FURFURAL 98-01-1 | | TWA: 2 ppm | | TWA: 2 ppm TWA: 8 mg/m ³ STEL: 5 ppm STEL: 20 mg/m ³ Skin | TWA: 2 ppm TWA: 7.9 mg/m ³ Skin |
| BENZYL ACETATE 140-11-4 | | TWA: 10 ppm | | | TWA: 10 ppm TWA: 61 mg/m ³ |
| DIMETHYL SULFIDE 75-18-3 | | TWA: 10 ppm | | | |

| Chemical Name | Austria | Sweden - Occupational | Switzerland | Poland | Norway |
|---------------|---------|--------------------------|-------------|--------|--------|
| | | | | | |

| | | Exposure Limits - TLVs (LLVs) | | | |
|-----------------------------|--|---|--|---|--|
| PROPYLENE GLYCOL 57-55-6 | | | | | TWA: 25 ppm TWA: 79 mg/m ³ STEL: 37.5 ppm STEL: 118.5 mg/m ³ |
| 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 |
| ETHYL ACETATE 141-78-6 | STEL 600 ppm STEL 2100 mg/m ³ TWA: 300 ppm TWA: 1050 mg/m ³ | 150 ppm NGV 500 mg/m ³ NGV | STEL: 800 ppm STEL: 2800 mg/m ³ TWA: 400 ppm TWA: 1400 mg/m ³ | STEL: 600 mg/m ³ TWA: 200 mg/m ³ | TWA: 150 ppm TWA: 550 mg/m ³ STEL: 187.5 ppm STEL: 687.5 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 |
| ISOAMYL ACETATE 123-92-2 | STEL 100 ppm STEL 540 mg/m ³ TWA: 50 ppm TWA: 270 mg/m ³ | 50 ppm NGV 270 mg/m ³ NGV | TWA: 50 ppm TWA: 260 mg/m ³ | STEL: 500 mg/m ³ TWA: 250 mg/m ³ | TWA: 50 ppm TWA: 260 mg/m ³ STEL: 75 ppm STEL: 325 mg/m ³ |
| FURFURAL 98-01-1 | Skin TWA: 5 ppm TWA: 20 mg/m ³ | 2 ppm NGV 8 mg/m ³ NGV | Skin TWA: 2 ppm TWA: 8 mg/m ³ | STEL: 25 mg/m ³ TWA: 10 mg/m ³ | TWA: 2 ppm TWA: 8 mg/m ³ Skin STEL: 4 ppm STEL: 16 mg/m ³ |
| DIMETHYL SULFIDE 75-18-3 | | 1 ppm NGV | | | |

| Component | Ireland |
|--|---|
| PROPYLENE GLYCOL 57-55-6 (50-90%) | TWA: 150 ppm TWA: 470 mg/m ³ TWA: 10 mg/m ³ |
| ETHYL ALCOHOL 64-17-5 (1-5%) | TWA: 1000 ppm TWA: 1900 mg/m ³ |
| ETHYL ACETATE 141-78-6 (<1) | TWA: 200 ppm STEL: 400 ppm |
| ACETALDEHYDE 75-07-0 (<1) | TWA: 25 ppm TWA: 45 mg/m ³ STEL: 25 ppm STEL: 45 mg/m ³ |
| ISOAMYL ACETATE 123-92-2 (<1) | TWA: 50 ppm TWA: 260 mg/m ³ STEL: 100 ppm STEL: 520 mg/m ³ |
| FURFURAL 98-01-1 (<1) | TWA: 2 ppm TWA: 8 mg/m ³ STEL: 5 ppm STEL: 20 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 Wear fire/ flame resistant/ retardant clothing 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 |
| Odor | typical of fresh strawberry | Color | 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 | 47 °C / 116 °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 | 1.01 - 1.031 | FCC Method |
| Specific Gravity @ 20C | 1.013 - 1.034 | FCC Method |
| Refractive Index | 1.4112 - 1.4412 | 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(%) | 95.406 |
| 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 | 0.954% 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 | 16,979.00 mg/kg |
| Dermal | 19,265.00 mg/kg |
| <u>Inhalation</u> | |
| Mist | 1,495,919.10 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 |
|------------------|---|--|---|
| PROPYLENE GLYCOL | 19000: 96 h Pseudokirchneriella subcapitata mg/L EC50 | 51600: 96 h Oncorhynchus mykiss mg/L LC50 static 41 - 47: 96 h Oncorhynchus mykiss mL/L LC50 static 51400: 96 h Pimephales promelas mg/L LC50 static 710: 96 h Pimephales promelas mg/L LC50 | 10000: 24 h Daphnia magna mg/L EC50 1000: 48 h Daphnia magna mg/L EC50 Static |
| 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 |
| 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 |
| 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 |
| FURFURAL | | 13.4 - 19.3: 96 h Pimephales promelas mg/L LC50 static 16.79 - 26.35: 96 h Pimephales promelas mg/L LC50 flow-through | 29: 24 h Daphnia magna mg/L EC50 |
| 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 |
| ETHYL ACETATE | 0.6 |
| ACETALDEHYDE | 0.5 |
| FURFURAL | 0.67 |
| BENZYL ACETATE | 1.96 |

12.4. Mobility in soil

No information available

12.5. Results of PBT and vPvB assessment**12.6. Other adverse effects**Endocrine Disruptor Information
Chemical Name

.? is a suspected endocrine disruptor

EU - Endocrine Disruptors

Candidate List

Group III Chemical

EU - Endocrine Disruptors -

Evaluated Substances

Japan - Endocrine Disruptor
Information

FURFURAL

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 |
|-----------------------------|---|
| PROPYLENE GLYCOL 57-55-6 | Hazard Class 1 |
| ETHYL ALCOHOL 64-17-5 | Hazard Class 1 |
| ETHYL ACETATE 141-78-6 | Hazard Class 1 |
| ACETALDEHYDE 75-07-0 | Hazard Class 1 |
| ISOAMYL ACETATE 123-92-2 | Hazard Class 1 |
| FURFURAL 98-01-1 | Hazard Class 2 |

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**

H402 - Harmful to aquatic life H226 - Flammable liquid and vapor H401 - Toxic to aquatic life H303 - May be harmful if swallowed H227 - Combustible liquid H316 - Causes mild skin irritation H319 - Causes serious eye irritation H225 - Highly flammable liquid and vapor H336 - May cause drowsiness or dizziness H351 - Suspected of causing cancer if inhaled H224 - Extremely flammable liquid and vapor H335 - May cause respiratory irritation H301 - Toxic if swallowed H312 - Harmful in contact with skin H331 - Toxic if inhaled H315 - Causes skin irritation EUH066 - Repeated exposure may cause skin dryness or cracking

| | |
|----------------------|-----------------|
| Revision Date | 09-Nov-2018 |
| Revision Note | Not applicable. |
| Revision# | 1.04 |

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.