



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

**1.1. Product identifier**

**Number** 308PGF

**Manufacturer** Apex Flavors, Inc  
1371 Brass Mill RD Suite A  
Belcamp, MD 21017  
410-565-6600  
CRANBERRY TYPE, NATURAL FLAVOR BLEND (PG-FREE)  
Mixture

**Product name**  
**Pure substance/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/ Outside US Chemtel 813-248-0585.

**2. HAZARDS IDENTIFICATION**

**2.1. Classification of the substance or mixture**

|                                       |             |
|---------------------------------------|-------------|
| Acute oral toxicity                   | Category 5  |
| Acute dermal toxicity                 | Category 5  |
| Acute inhalation toxicity - dust/mist | Category 4  |
| Serious eye damage/eye irritation     | Category 2A |
| Carcinogenicity                       | Category 1A |
| 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

**Symbol(s)**  
Xn - Harmful

**R-code(s)**  
Xn;R21

**2.2. Label elements**

**Signal Word**

Danger

**Hazard Statements**

H332 - Harmful if inhaled

H319 - Causes serious eye irritation

H350 - May cause cancer

H401 - Toxic 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 |
|-----------------|-----------|----------|-----------------|----------|--|---|---------------------------|
| ETHYL ALCOHOL   | 200-578-6 | 64-17-5  |                 | 20-30%   | F; R11   | Flam. Liq. 2 (H225)<br>Eye Irrit. 1 (H319)  | No data available         |
| ACETIC ACID     | 200-580-7 | 64-19-7  |                 | 1-5%     | R10<br>C; R35  | Skin Corr. 1A (314)<br>Eye Dam. 1 (H318)<br>Flam. Liq. 3 (H226)   | No data available         |
| BENZYL ALCOHOL  | 202-859-9 | 100-51-6 |                 | <1       | Xn; R20/22   | Acute Tox. 5 (H333)<br>Acute Tox. 4 (H302)  | No data available         |
| ISOAMYL ALCOHOL | 204-633-5 | 123-51-3 |                 | <1       | -  | Flam. Liq. 3 (H226)(EFFA)<br>Acute Tox. 4 (H332)(EFFA)  | No data available         |
| BENZALDEHYDE    | Present   | 100-52-7 |                 | <1       | Xn; R22  | Acute Tox. 4 (H302)<br>Aquatic Acute 2 (H401)<br>(EFFA) Eye Irrit. 1 (H319)<br>(EFFA) Skin Irrit. 3 (316)<br>(EFFA) Acute Tox. 4<br>(H302) (EFFA) Flam. Liq. 4<br>(H227)(EFFA) Acute Tox. 4<br>(H332)(EFFA) | No data available         |

|                |           |          |  |    |                    |   |                   |
|----------------|-----------|----------|--|----|--------------------|---|-------------------|
|                |           |          |  |    |                    | Aquatic Acute 2 (H401)<br>Eye Irrit. 1 (H319) Skin Irrit.<br>3 (H316) Acute Tox. 4<br>(H302) Acute Tox. 4<br>(H332)   |                   |
| BENZYL ACETATE | Present   | 140-11-4 |  | <1 | -                  | Aquatic Acute 2 (H401)<br>(EFFA) Skin Irrit. 3 (316)<br>(EFFA) Acute Tox. 5<br>(H303)(EFFA) Flam. Liq. 4<br>(H227)(EFFA)<br>Aquatic Acute 2 (H401)<br>Skin Irrit. 3 (H316) Acute<br>Tox. 5 (H303) | No data available |
| ACETOPHENONE   | 202-708-7 | 98-86-2  |  | <1 | Xn; R22<br>Xi; R36 | Acute Tox. 4 (H302)<br>Eye Irrit. 1 (H319) (EFFA)<br>Acute Tox. 4 (H302)<br>(EFFA)<br>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

|   |  |
|---|--|
| <b>General advice</b>                     | 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   |
|--------------------------|--|--|--|--|---|
| ETHYL ALCOHOL<br>64-17-5 |  | STEL: 3000 ppm<br>STEL: 5760 mg/m <sup>3</sup><br>TWA: 1000 ppm TWA:<br>1920 mg/m <sup>3</sup> | VME: 1000 ppm VME:<br>1900 mg/m <sup>3</sup><br>VLCT: 5000 ppm<br>VLCT: 9500 mg/m <sup>3</sup> | VLA-ED: 1000 ppm<br>VLA-ED: 1910 mg/m <sup>3</sup>   | MAK: 500 ppm MAK:<br>960 mg/m <sup>3</sup><br>Ceiling / Peak: 1000<br>ppm Ceiling / Peak:<br>1920 mg/m <sup>3</sup><br>Skin<br>TWA: 500 ppm TWA:<br>960 mg/m <sup>3</sup> |
| ACETIC ACID<br>64-19-7   | TWA 10 ppm TWA 25<br>mg/m <sup>3</sup> |  | VLCT: 10 ppm VLCT:<br>25 mg/m <sup>3</sup>   | VLA-EC: 15 ppm<br>VLA-EC: 37 mg/m <sup>3</sup><br>VLA-ED: 10 ppm<br>VLA-ED: 25 mg/m <sup>3</sup> | MAK: 10 ppm MAK: 25<br>mg/m <sup>3</sup><br>Ceiling / Peak: 20 ppm<br>Ceiling / Peak: 50<br>mg/m <sup>3</sup>   |

|                             |  |  |  |  |  |
|-----------------------------|--|--|--|--|--|
|                             |  |  |  |  | TWA: 10 ppm TWA:<br>25 mg/m <sup>3</sup>   |
| ISOAMYL ALCOHOL<br>123-51-3 |  | STEL: 125 ppm STEL:<br>458 mg/m <sup>3</sup><br>TWA: 100 ppm TWA:<br>366 mg/m <sup>3</sup> | TWA: 100 ppm TWA:<br>360 mg/m <sup>3</sup> | STEL: 125 ppm STEL:<br>458 mg/m <sup>3</sup><br>TWA: 100 ppm TWA:<br>366 mg/m <sup>3</sup> | TWA: 20 ppm TWA:<br>73 mg/m <sup>3</sup><br>Ceiling / Peak: 80 ppm<br>Ceiling / Peak: 292<br>mg/m <sup>3</sup> |
| BENZYL ACETATE<br>140-11-4  |  |  |  | TWA: 10 ppm<br>TWA: 62 mg/m <sup>3</sup>   |  |
| ACETOPHENONE<br>98-86-2     |  |  |  | TWA: 10 ppm<br>TWA: 50 mg/m <sup>3</sup>   |  |

| Chemical Name               | Italy | Portugal                      | The Netherlands  | Finland  | Denmark                                      |
|-----------------------------|-------|-------------------------------|--|--|--|
| ETHYL ALCOHOL<br>64-17-5    |       | TWA: 1000 ppm                 | Skin<br>STEL: 1900 mg/m <sup>3</sup><br>TWA: 260 mg/m <sup>3</sup> | TWA: 1000 ppm TWA:<br>1900 mg/m <sup>3</sup><br>STEL: 1300 ppm<br>STEL: 2500 mg/m <sup>3</sup>   | TWA: 1000 ppm TWA:<br>1900 mg/m <sup>3</sup> |
| ACETIC ACID<br>64-19-7      |       | STEL: 15 ppm<br>TWA: 10 ppm   |  | TWA: 5 ppm TWA: 13<br>mg/m <sup>3</sup><br>STEL: 10 ppm STEL:<br>25 mg/m <sup>3</sup>  | TWA: 10 ppm TWA:<br>25 mg/m <sup>3</sup>     |
| BENZYL ALCOHOL<br>100-51-6  |       |                               |  | TWA: 10 ppm TWA:<br>45 mg/m <sup>3</sup>   |  |
| ISOAMYL ALCOHOL<br>123-51-3 |       | STEL: 125 ppm<br>TWA: 100 ppm |  | TWA: 100 ppm TWA:<br>370 mg/m <sup>3</sup><br>STEL: 150 ppm STEL:<br>550 mg/m <sup>3</sup>   | TWA: 100 ppm TWA:<br>360 mg/m <sup>3</sup>   |
| BENZALDEHYDE<br>100-52-7    |       |                               |  | TWA: 1 ppm<br>TWA: 4.4 mg/m <sup>3</sup><br>STEL: 4 ppm<br>STEL: 17.4 mg/m <sup>3</sup><br>Ceiling: 4 ppm<br>Ceiling: 17.4 mg/m <sup>3</sup> |  |
| BENZYL ACETATE<br>140-11-4  |       | TWA: 10 ppm                   |  |  | TWA: 10 ppm<br>TWA: 61 mg/m <sup>3</sup>     |
| ACETOPHENONE<br>98-86-2     |       | TWA: 10 ppm                   |  | TWA: 5 ppm<br>TWA: 25 mg/m <sup>3</sup>  | TWA: 10 ppm<br>TWA: 49 mg/m <sup>3</sup>     |

| Chemical Name               | Austria  | Sweden -<br>Occupational<br>Exposure Limits -<br>TLVs (LLVs) | Switzerland  | Poland  | Norway  |
|-----------------------------|--|--|--|---|---|
| ETHYL ALCOHOL<br>64-17-5    | STEL 2000 ppm STEL<br>3800 mg/m <sup>3</sup><br>MAK: 1000 ppm MAK:<br>1900 mg/m <sup>3</sup> | 500 ppm NGV 1000<br>mg/m <sup>3</sup> NGV                    | STEL: 1000 ppm<br>STEL: 1920 mg/m <sup>3</sup><br>MAK: 500 ppm MAK:<br>960 mg/m <sup>3</sup> | NDS: 1900 mg/m <sup>3</sup>                               | TWA: 500 ppm TWA:<br>950 mg/m <sup>3</sup><br>STEL: 625 ppm STEL:<br>1187.5 mg/m <sup>3</sup> |
| ACETIC ACID<br>64-19-7      | STEL 20 ppm STEL<br>50 mg/m <sup>3</sup><br>MAK: 10 ppm MAK: 25<br>mg/m <sup>3</sup>         | 5 ppm NGV 13 mg/m <sup>3</sup><br>NGV                        | STEL: 20 ppm STEL:<br>50 mg/m <sup>3</sup><br>MAK: 10 ppm MAK: 25<br>mg/m <sup>3</sup>       | NDSch: 30 mg/m <sup>3</sup><br>NDS: 15 mg/m <sup>3</sup>  | TWA: 10 ppm TWA:<br>25 mg/m <sup>3</sup><br>STEL: 20 ppm STEL:<br>37.5 mg/m <sup>3</sup>      |
| BENZYL ALCOHOL<br>100-51-6  |  |  |  | NDS: 240 mg/m <sup>3</sup>                                |   |
| ISOAMYL ALCOHOL<br>123-51-3 | STEL 200 ppm STEL<br>720 mg/m <sup>3</sup><br>TWA: 100 ppm TWA:<br>360 mg/m <sup>3</sup>     |  | STEL: 80 ppm STEL:<br>292 mg/m <sup>3</sup><br>TWA: 20 ppm TWA:<br>73 mg/m <sup>3</sup>      | STEL: 400 mg/m <sup>3</sup><br>TWA: 200 mg/m <sup>3</sup> | TWA: 50 ppm TWA:<br>180 mg/m <sup>3</sup><br>STEL: 75 ppm STEL:<br>225 mg/m <sup>3</sup>      |
| BENZALDEHYDE<br>100-52-7    |  |  |  | STEL: 40 mg/m <sup>3</sup><br>TWA: 10 mg/m <sup>3</sup>   |   |
| ACETOPHENONE<br>98-86-2     |  |  |  | STEL: 100 mg/m <sup>3</sup><br>TWA: 50 mg/m <sup>3</sup>  |   |

| Component                           | Ireland  |
|-------------------------------------|--|
| ETHYL ALCOHOL<br>64-17-5 ( 20-30% ) | TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>  |
| ACETIC ACID<br>64-19-7 ( 1-5% )     | TWA: 10 ppm TWA: 25 mg/m <sup>3</sup><br>STEL: 15 ppm STEL: 37 mg/m <sup>3</sup> |
| ISOAMYL ALCOHOL                     | TWA: 100 ppm TWA: 360 mg/m <sup>3</sup>  |

|               |   |
|---------------|---|
| 123-51-3 (<1) | STEL: 125 ppm STEL: 450 mg/m <sup>3</sup> |
| ACETOPHENONE  | TWA: 10 ppm                               |
| 98-86-2 (<1)  | TWA: 49 mg/m <sup>3</sup>                 |

**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>                            | characteristic of cranberry | <b>Color</b>             | colorless |
| <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                            | 28 °C / 83 °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                 | 0.9834 - 1.0134             | FCC Method               |           |
| Specific Gravity @ 20C                 | 0.9864 - 1.0164             | FCC Method               |           |
| Refractive Index                       | 1.3635 - 1.3935             | 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(%)   | 28.085                   |
| 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** 42.616% 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** 4,218.00 mg/kg

**Dermal** 3,695.00 mg/kg

#### Inhalation

**Mist** 4.75 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 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 |
| ACETIC ACID   |                   | 75: 96 h Lepomis macrochirus mg/L  | 47: 24 h Daphnia magna mg/L   |



|                 |   |  |  |
|-----------------|---|--|--|
|                 |   | LC50 static 79: 96 h Pimephales promelas mg/L LC50 static  | EC50 65: 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                |
| ISOAMYL ALCOHOL | 493: 72 h Desmodemus subspicatus mg/L EC50 181: 96 h Desmodemus subspicatus mg/L EC50 | 700: 96 h Salmo gairdneri mg/L LC50 static   | 260: 48 h Daphnia magna mg/L EC50            |
| BENZALDEHYDE    |   | 10.6 - 11.8: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 12.69: 96 h Oncorhynchus mykiss mg/L LC50 static 0.8 - 1.44: 96 h Lepomis macrochirus mg/L LC50 flow-through 6.8 - 8.53: 96 h Pimephales promelas mg/L LC50 flow-through 7.5: 96 h Lepomis macrochirus mg/L LC50 static | 50: 24 h Daphnia magna mg/L EC50             |
| ACETOPHENONE    |   | 162: 96 h Pimephales promelas mg/L LC50 flow-through 155: 96 h Pimephales promelas mg/L LC50 static  |  |

**12.2. Persistence and degradability**

No information available

**12.3. Bioaccumulative potential**

No information available

| Chemical Name   | log Pow |
|-----------------|---------|
| ETHYL ALCOHOL   | -0.32   |
| ACETIC ACID     | -0.31   |
| BENZYL ALCOHOL  | 1.1     |
| ISOAMYL ALCOHOL | 1.28    |
| BENZALDEHYDE    | 1.48    |
| BENZYL ACETATE  | 1.96    |
| ACETOPHENONE    | 1.73    |

**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**

|  |  |
|--|--|
| <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

**DOT/ADR**

|                             |                              |
|-----------------------------|------------------------------|
| <b>UN/ID No</b>             | 1197                         |
| <b>Proper shipping name</b> | EXTRACTS, FLAVOURING, LIQUID |
| <b>Hazard class</b>         | 3                            |
| <b>Packing Group</b>        | III                          |
| <b>ERG Code</b>             | 127                          |

**IMDG / IMO**

|                             |                              |
|-----------------------------|------------------------------|
| <b>Proper shipping name</b> | EXTRACTS, FLAVOURING, LIQUID |
| <b>Hazard class</b>         | 3                            |
| <b>UN/ID No</b>             | 1197                         |
| <b>Packing Group</b>        | III                          |

**ICAO/IATA**

|                             |                              |
|-----------------------------|------------------------------|
| <b>UN/ID No</b>             | 1197                         |
| <b>Proper shipping name</b> | EXTRACTS, FLAVOURING, LIQUID |
| <b>Hazard class</b>         | 3                            |
| <b>Packing Group</b>        | 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<br>64-17-5    | Hazard Class 1  |
| ACETIC ACID<br>64-19-7      | Hazard Class 1  |
| BENZYL ALCOHOL<br>100-51-6  | Hazard Class 1  |
| ISOAMYL ALCOHOL<br>123-51-3 | Hazard Class 1  |
| BENZALDEHYDE<br>100-52-7    | Hazard Class 2  |
| ACETOPHENONE<br>98-86-2     | Hazard Class 1  |

**International Inventories**

All of the components in the product are on the following Inventory lists: No information available.

|                      |   |
|----------------------|---|
| <b>TSCA</b>          | - |
| <b>EINECS/ELINCS</b> | - |
| <b>DSL/NDSL</b>      | - |
| <b>PICCS</b>         | - |
| <b>ENCS</b>          | - |
| <b>IECSC</b>         | - |
| <b>AICS</b>          | - |
| <b>KECL</b>          | - |

**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

R36/38 - Irritating to eyes and skin

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

H333 - May be harmful if inhaled H302 - Harmful if swallowed H401 - Toxic to aquatic life H319 - Causes serious eye irritation H227 - Combustible liquid H332 - Harmful if inhaled H316 - Causes mild skin irritation H226 - Flammable liquid and vapor H303 - May be harmful if swallowed H225 - Highly flammable liquid and vapor H318 - Causes serious eye damage

|               |                 |
|---------------|-----------------|
| Revision Date | 02-Apr-2018     |
| Revision Note | Not applicable. |
| Revision#     | 1               |

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

### WARNING/DISCLAIMER:

The ingredients/flavors provided by Apex have not been tested, nor have they been deemed safe, for inhalation or use in electronic smoking devices, electronic nicotine delivery systems, electronic cigarettes or other similar devices (collectively "E-Cigarettes"). In supplying ingredients/flavors, Apex instructs, and by receiving such ingredients/flavors recipient confirms, that the ingredients/flavors will not be used in connection with the manufacture and distribution of E-Cigarettes or any component thereof.

### 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.