



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

**1.1. Product identifier**

**Number** 009, 009BEV, 009EAFT, 009ICR, 009PGF, 009PGFT, 009TTB

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

**Product name** BLUEBERRY TYPE, NATURAL FLAVOR BLEND Mixture  
**Pure substance/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/ Outside US Chemtel 813-248-0585

## 2. HAZARDS IDENTIFICATION

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

Acute aquatic toxicity	Category 3
Chronic 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

**2.2. Label elements**



**Signal Word**  
Warning

**Hazard Statements**  
H412 - Harmful to aquatic life with long lasting effects

H226 - Flammable liquid and vapor

**Precautionary Statements**

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	Present	64-17-5		5-10%	F; R11	Eye Irrit. 1 (H319) (EFFA) Flam. Liq. 2 (H225) (EFFA) Flam. Liq. 2 (H225)	No data available
DAMASCENONE	Present	23696-85-7		<1	-	Aquatic Acute 2 (H401) (EFFA) Skin Sens. 1 (H317) (EFFA) Skin Irrit. 3 (316) (EFFA) Aquatic Chronic 2 (H411) (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**

<b>General advice</b>	If symptoms persist, call a physician
<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>	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.
<b>Ingestion</b>	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.
<b>Inhalation</b>	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.
<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 Dry chemical Carbon dioxide CO<sub>2</sub> 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. Keep people away from and upwind of spill/leak. Remove all sources of ignition. 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.

### 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 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
PROPYLENE GLYCOL 57-55-6		STEL: 450 ppm STEL: 1422 mg/m <sup>3</sup> STEL: 30 mg/m <sup>3</sup> TWA: 150 ppm TWA: 474 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>			
ETHYL ALCOHOL 64-17-5		STEL: 3000 ppm STEL: 5760 mg/m <sup>3</sup> TWA: 1000 ppm TWA: 1920 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup> STEL: 5000 ppm STEL: 9500 mg/m <sup>3</sup>	STEL: 1000 ppm STEL: 1910 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 960 mg/m <sup>3</sup> Ceiling / Peak: 1000 ppm Ceiling / Peak: 1920 mg/m <sup>3</sup> Skin

Chemical Name	Italy	Portugal	The Netherlands	Finland	Denmark
ETHYL ALCOHOL 64-17-5		TWA: 1000 ppm	Skin STEL: 1900 mg/m <sup>3</sup> TWA: 260 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup> STEL: 1300 ppm STEL: 2500 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>

Chemical Name	Austria	Sweden - Occupational Exposure Limits - TLVs (LLVs)	Switzerland	Poland	Norway
PROPYLENE GLYCOL 57-55-6					TWA: 25 ppm TWA: 79 mg/m <sup>3</sup> STEL: 37.5 ppm STEL: 118.5 mg/m <sup>3</sup>
ETHYL ALCOHOL 64-17-5	STEL 2000 ppm STEL 3800 mg/m <sup>3</sup> TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>	500 ppm NGV 1000 mg/m <sup>3</sup> NGV	STEL: 1000 ppm STEL: 1920 mg/m <sup>3</sup> TWA: 500 ppm TWA: 960 mg/m <sup>3</sup>	TWA: 1900 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 950 mg/m <sup>3</sup> STEL: 625 ppm STEL: 1187.5 mg/m <sup>3</sup>

Component	Ireland
PROPYLENE GLYCOL 57-55-6 ( 50-90% )	TWA: 150 ppm TWA: 470 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>
ETHYL ALCOHOL 64-17-5 ( 5-10% )	STEL: 1000 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 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

<b>Physical state</b>	liquid	<b>Appearance</b>	clear
<b>Odor</b>	blueberry	<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	58 °C / 137 °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	1.015 - 1.035	FCC Method	
Specific Gravity @ 20C	1.018 - 1.038	FCC Method	
Refractive Index	1.3855 - 1.4055	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(%)	58.5117093011504
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** 40.428099% 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** 22,707.00 mg/kg  
**Dermal** 23,616.00 mg/kg

Chemical Name	Oral LD50	Dermal LD50	LC50 Inhalation
PROPYLENE GLYCOL	20000 mg/kg ( Rat )	20800 mg/kg ( Rabbit )	
ETHYL ALCOHOL			124.7 mg/L ( Rat ) 4 h

**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 2: 48 h Daphnia magna mg/L EC50 Static
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**12.2. Persistence and degradability**

No information available

**12.3. Bioaccumulative potential**

No information available

Chemical Name	log Pow
ETHYL ALCOHOL	-0.32

**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**

**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**

**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  
 ERG Code                              127

**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

**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).

<b>TSCA</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>PICCS</b>	Complies
<b>ENCS</b>	-
<b>IECSC</b>	Complies
<b>AICS</b>	Complies
<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**

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

H401 - Toxic to aquatic life H317 - May cause an allergic skin reaction H411 - Toxic to aquatic life with long lasting effects H319 - Causes serious eye irritation H225 - Highly flammable liquid and vapor

<b>Revision Date</b>	08-Jan-2016
<b>Revision Note</b>	Not applicable.
<b>Revision#</b>	1

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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**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.**