

# Safety Data Sheet

acc. to OSHA HCS

## 1 Identification

- **Product identifier**
- **Trade name:** BLUEBERRY MUFFIN FLAVOR EXTRACT
- **Article number:** BAFG / 08.1031
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
 OliveNation LLC  
 13 Robbie Road A4  
 Avon, MA 02322  
 USA  
 617-580-3667
- **Information department:** Regulatory Department
- **Emergency telephone number:**  
 During normal opening times: Call Chemtrec Day or Night  
 Domestic North America 800.424.9300/International 703.527.3887 (Collect calls accepted)

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids 3 H226 Flammable liquid and vapor.



GHS08 Health hazard

Carcinogenicity 1A H350 May cause cancer.



GHS07

Sensitization - Skin 1 H317 May cause an allergic skin reaction.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02



GHS07



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
 ETHYL ALCOHOL  
 STRAWBERRY FURANONE 100%
- **Hazard statements**  
 Flammable liquid and vapor.  
 May cause an allergic skin reaction.  
 May cause cancer.

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· **Precautionary statements**

Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
 Keep container tightly closed.  
 Ground/bond container and receiving equipment.  
 Use explosion-proof electrical/ventilating/lighting/equipment.  
 Use only non-sparking tools.  
 Take precautionary measures against static discharge.  
 Avoid breathing dust/fume/gas/mist/vapors/spray  
 Contaminated work clothing must not be allowed out of the workplace.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 IF exposed or concerned: Get medical advice/attention.  
 Specific treatment (see on this label).  
 If skin irritation or rash occurs: Get medical advice/attention.  
 Wash contaminated clothing before reuse.  
 In case of fire: Use CO<sub>2</sub>, powder or water spray to extinguish.  
 Store in a well-ventilated place. Keep cool.  
 Store locked up.  
 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

## 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

57-55-6	PROPYLENE GLYCOL	>50-≤100%
	⚠ Acute Toxicity - Oral 4, H302	
64-17-5	ETHYL ALCOHOL	>10-≤25%
	⚠ Flammable Liquids 2, H225; ⚠ Carcinogenicity 1A, H350	
78-70-6	LINALOOL	≥0.1-<1%
	⚠ Sensitization - Skin 1B, H317; Flammable Liquids 4, H227	

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3658-77-3 STRAWBERRY FURANONE 100%

≥0.1-&lt;1%

 Eye Irritation 2A, H319; Sensitization - Skin 1, H317

### 4 First-aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**  
Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· **PAC-I:**

57-55-6	PROPYLENE GLYCOL	30 mg/m <sup>3</sup>
64-17-5	ETHYL ALCOHOL	1,800 ppm
98-01-1	2-furaldehyde	2 ppm
119-36-8	methyl salicylate	2.3 ppm
107-92-6	BUTYRIC ACID	1.4 ppm

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112-80-1	oleic acid, pure	220 mg/m <sup>3</sup>
64-19-7	ACETIC ACID	5 ppm
75-18-3	DIMETHYL SULFIDE	0.5 ppm
124-07-2	CAPRYLIC ACID	30 mg/m <sup>3</sup>
<b>· PAC-2:</b>		
57-55-6	PROPYLENE GLYCOL	1,300 mg/m <sup>3</sup>
64-17-5	ETHYL ALCOHOL	3300* ppm
98-01-1	2-furaldehyde	10 ppm
119-36-8	methyl salicylate	25 ppm
107-92-6	BUTYRIC ACID	16 ppm
112-80-1	oleic acid, pure	2,400 mg/m <sup>3</sup>
64-19-7	ACETIC ACID	35 ppm
75-18-3	DIMETHYL SULFIDE	1,000 ppm
124-07-2	CAPRYLIC ACID	330 mg/m <sup>3</sup>
<b>· PAC-3:</b>		
57-55-6	PROPYLENE GLYCOL	7,900 mg/m <sup>3</sup>
64-17-5	ETHYL ALCOHOL	15000* ppm
98-01-1	2-furaldehyde	100 ppm
119-36-8	methyl salicylate	150 ppm
107-92-6	BUTYRIC ACID	110 ppm
112-80-1	oleic acid, pure	15,000 mg/m <sup>3</sup>
64-19-7	ACETIC ACID	250 ppm
75-18-3	DIMETHYL SULFIDE	5000* ppm
124-07-2	CAPRYLIC ACID	2,000 mg/m <sup>3</sup>

## 7 Handling and storage

**· Handling:**

**· Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

**· Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respiratory protective device available.

**· Conditions for safe storage, including any incompatibilities**

**· Storage:**

**· Requirements to be met by storerooms and receptacles:**

Store in a tightly sealed containers in a cool, dry place that is well ventilated. Away from heat, spark, and open flame.

**· Information about storage in one common storage facility:** Not required.

**· Further information about storage conditions:** Keep receptacle tightly sealed.

**· Specific end use(s)** No further relevant information available.

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## 8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

### 57-55-6 PROPYLENE GLYCOL

WEEL Long-term value: 10 mg/m<sup>3</sup>

### 64-17-5 ETHYL ALCOHOL

PEL Long-term value: 1900 mg/m<sup>3</sup>, 1000 ppm

REL Long-term value: 1900 mg/m<sup>3</sup>, 1000 ppm

TLV Short-term value: 1000 ppm

A3

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

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### 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Liquid
Color:	According to product specification
Odor:	Characteristic
Odor threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

· **Flash point:** 28.3 °C (82.9 °F)

· **Flammability (solid, gaseous):** Flammable.

· **Ignition temperature:** 371 °C (699.8 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· **Explosion limits:**

Lower:	2.6 Vol %
Upper:	15 Vol %

· **Vapor pressure at 20 °C (68 °F):** 59 hPa (44.3 mm Hg)

· **Density at 20 °C (68 °F):** 0.97195 g/cm<sup>3</sup> (8.11092 lbs/gal)

· **Relative density** Not determined.

· **Vapor density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with**

Water: Fully miscible.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

Dynamic:	Not determined.
Kinematic:	Not determined.

· **Solvent content:**

Organic solvents:	95.3 %
Water:	0.1 %
VOC content:	95.26 %
	925.9 g/l / 7.73 lb/gal

Solids content: 2.0 %

· **Other information** No further relevant information available.

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## 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

### 57-55-6 PROPYLENE GLYCOL

Dermal	LD50	20,800 mg/kg (rabbit)
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### 64-17-5 ETHYL ALCOHOL

Inhalative	LC50/4 h	20,000 mg/l (rat)
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### 78-70-6 LINALOOL

Dermal	LD50	5,610 mg/kg (rabbit)
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- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)**  
Ethyl alcohol causes cancer when used in alcoholic beverages per IARC guidelines.

64-17-5	ETHYL ALCOHOL	1
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98-01-1	2-furaldehyde	3
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- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.

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- **Additional ecological information:**
- **General notes:**  
*Water hazard class 1 (Self-assessment): slightly hazardous for water*  
*Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.*
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
*Must not be disposed of together with household garbage. Do not allow product to reach sewage system.*
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

- |   |                              |
|---|------------------------------|
| · <b>UN-Number</b>  | UN1197                       |
| · <b>DOT, IMDG, IATA</b>  |                              |
| · <b>UN proper shipping name</b>  | Extracts, flavoring, liquid  |
| · <b>DOT</b>  | EXTRACTS, FLAVOURING, LIQUID |
| · <b>IMDG, IATA</b>   |                              |
| · <b>Transport hazard class(es)</b>   |                              |
| · <b>DOT</b>  |                              |
|  |                              |
| · <b>Class</b>  | 3 Flammable liquids          |
| · <b>Label</b>  | 3                            |
| · <b>IMDG, IATA</b>   |                              |
|  |                              |
| · <b>Class</b>  | 3 Flammable liquids          |
| · <b>Label</b>  | 3                            |
| · <b>Packing group</b>  | III                          |
| · <b>DOT, IMDG, IATA</b>  |                              |
| · <b>Environmental hazards:</b>   | Not applicable.              |
| · <b>Special precautions for user</b>   | Warning: Flammable liquids   |
| · <b>Hazard identification number (Kemler code):</b>                                | 30                           |
| · <b>EMS Number:</b>  | F-E,S-D                      |

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· <b>Stowage Category</b>	<i>A</i>
· <b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	<i>Not applicable.</i>
· <b>Transport/Additional information:</b>	
· <b>DOT</b>	
· <b>Quantity limitations</b>	<i>On passenger aircraft/rail: 60 L On cargo aircraft only: 220 L</i>
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	<i>5L</i>
· <b>Excepted quantities (EQ)</b>	<i>Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml</i>
· <b>UN "Model Regulation":</b>	<i>UN 1197 EXTRACTS, FLAVOURING, LIQUID, 3, III</i>

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### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

· **Section 355 (extremely hazardous substances):**

*None of the ingredients is listed.*

· **Section 313 (Specific toxic chemical listings):**

*None of the ingredients is listed.*

- **TSCA (Toxic Substances Control Act):** *All substances are active or exempt.*

· **Hazardous Air Pollutants**

*None of the ingredients is listed.*

· **Proposition 65**

· **Chemicals known to cause cancer:**

*Ethyl alcohol causes cancer when used in alcoholic beverages per OEHHA guidelines.*

*None of the ingredients is listed.*

· **Chemicals known to cause reproductive toxicity for females:**

*None of the ingredients is listed.*

· **Chemicals known to cause reproductive toxicity for males:**

*None of the ingredients is listed.*

· **Chemicals known to cause developmental toxicity:**

*64-17-5 ETHYL ALCOHOL*

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

*None of the ingredients is listed.*

· **TLV (Threshold Limit Value)**

*64-17-5 ETHYL ALCOHOL*

*A3*

*98-01-1 2-furaldehyde*

*A3*

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

*None of the ingredients is listed.*

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· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS02   GHS07   GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

*ETHYL ALCOHOL*

*STRAWBERRY FURANONE 100%*

· **Hazard statements**

*Flammable liquid and vapor.*

*May cause an allergic skin reaction.*

*May cause cancer.*

· **Precautionary statements**

*Obtain special instructions before use.*

*Do not handle until all safety precautions have been read and understood.*

*Keep away from heat/sparks/open flames/hot surfaces. - No smoking.*

*Keep container tightly closed.*

*Ground/bond container and receiving equipment.*

*Use explosion-proof electrical/ventilating/lighting/equipment.*

*Use only non-sparking tools.*

*Take precautionary measures against static discharge.*

*Avoid breathing dust/fume/gas/mist/vapors/spray*

*Contaminated work clothing must not be allowed out of the workplace.*

*Wear protective gloves/protective clothing/eye protection/face protection.*

*If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.*

*IF exposed or concerned: Get medical advice/attention.*

*Specific treatment (see on this label).*

*If skin irritation or rash occurs: Get medical advice/attention.*

*Wash contaminated clothing before reuse.*

*In case of fire: Use CO2, powder or water spray to extinguish.*

*Store in a well-ventilated place. Keep cool.*

*Store locked up.*

*Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **National regulations:**

· **Information about limitation of use:**

*Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.*

*Exceptions can be made by the authorities in certain cases.*

· **Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

## 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

· **Abbreviations and acronyms:**

*IMDG: International Maritime Code for Dangerous Goods*

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DOT: US Department of Transportation  
IATA: International Air Transport Association  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)  
VOC: Volatile Organic Compounds (USA, EU)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
NIOSH: National Institute for Occupational Safety  
OSHA: Occupational Safety & Health  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit  
Flammable Liquids 2: Flammable liquids – Category 2  
Flammable Liquids 3: Flammable liquids – Category 3  
Flammable Liquids 4: Flammable liquids – Category 4  
Acute Toxicity - Oral 4: Acute toxicity – Category 4  
Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A  
Sensitization - Skin 1: Skin sensitisation – Category 1  
Sensitization - Skin 1B: Skin sensitisation – Category 1B  
Carcinogenicity 1A: Carcinogenicity – Category 1A  
· **\* Data compared to the previous version altered.**

US