



# OIL, DRAGONS BLOOD II\*

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Issue date: 03/02/2018

Revision date: 03/05/2024

Supersedes: 08/03/2020

Version: 1.4

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
Product name : OIL, DRAGONS BLOOD II\*  
CAS-No. : N/A  
Product code : 90-3027-50

#### 1.2. Recommended use and restrictions on use

#### 1.3. Supplier

The Lebermuth Company  
4004 Technology Drive  
South Bend, IN 46628 - United States  
T 574-259-7000 - F 574-258-7450  
[info@lebermuth.com](mailto:info@lebermuth.com) - [www.lebermuth.com](http://www.lebermuth.com)

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC - USA: 800-424-9300 International: +1 703-527-3887 / 1-800-424-9300  
CCN 13010

### SECTION 2: Hazard(s) identification

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

##### GHS US classification

Flammable liquids Category 4	Combustible liquid
Acute toxicity (oral) Category 4	Harmful if swallowed
Skin corrosion/irritation Category 2	Causes skin irritation
Serious eye damage/eye irritation Category 2	Causes serious eye irritation
Skin sensitization, Category 1	May cause an allergic skin reaction
Aspiration hazard Category 1	May be fatal if swallowed and enters airways

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

Hazard pictograms (GHS US) :



GHS07

GHS08

Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

Combustible liquid  
Harmful if swallowed  
May be fatal if swallowed and enters airways  
Causes skin irritation  
May cause an allergic skin reaction  
Causes serious eye irritation

Precautionary statements (GHS US) :

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Avoid breathing dust/fume/gas/mist/vapors/spray.  
Wash hands, forearms and face thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Contaminated work clothing must not be allowed out of the workplace.  
Wear protective gloves/protective clothing/eye protection/face protection.  
If swallowed: Immediately call a poison center or doctor.  
If swallowed: Call a poison center or doctor if you feel unwell.  
If on skin: Wash with plenty of water.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Specific treatment (see supplemental first aid instruction on this label).  
Rinse mouth.

# OIL, DRAGONS BLOOD II\*

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Do NOT induce vomiting.  
If skin irritation occurs: Get medical advice/attention.  
If skin irritation or rash occurs: Get medical advice/attention.  
If eye irritation persists: Get medical advice/attention.  
Take off contaminated clothing and wash it before reuse.  
Wash contaminated clothing before reuse.  
In case of fire: Use media other than water to extinguish.  
Store in a well-ventilated place. Keep cool.  
Store locked up.  
Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### 2.3. Other hazards which do not result in classification

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	GHS US classification
BENZYL BENZOATE	(CAS-No.) 120-51-4	25 – 50	Acute Tox. 4 (Oral), H302
PHENYLETHYL ALCOHOL	(CAS-No.) 60-12-8	10 – 25	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319
D-LIMONENE	(CAS-No.) 5989-27-5	10 – 25	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304
COUMARIN	(CAS-No.) 91-64-5	5 – 10	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Skin Sens. 1B, H317
VANILLIN	(CAS-No.) 121-33-5	5 – 10	Eye Irrit. 2A, H319
ETHYL VANILLIN	(CAS-No.) 121-32-4	5 – 10	Eye Irrit. 2B, H320
ALPHA TERPINEOL	(CAS-No.) 98-55-5	1 – 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319
3,5,5-Trimethylhexyl acetate	(CAS-No.) 58430-94-7	1 – 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315
METHYL ANTHRANILATE	(CAS-No.) 134-20-3	1 – 5	Eye Irrit. 2A, H319
GERANYL ACETATE	(CAS-No.) 105-87-3	1 – 5	Skin Irrit. 2, H315 Skin Sens. 1B, H317
GERANIOL	(CAS-No.) 106-24-1	0.1 – 1	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317
CITRAL	(CAS-No.) 5392-40-5	0.1 – 1	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 STOT RE 2, H373

Full text of hazard classes and H-statements : see section 16

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

First-aid measures general	: Call a physician immediately.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. Call a physician immediately.

### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Eye irritation.

# OIL, DRAGONS BLOOD II\*

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Symptoms/effects after ingestion : Risk of lung edema.

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

### 5.2. Specific hazards arising from the chemical

Fire hazard : Combustible liquid.

Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

### 5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.

Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool. Store locked up.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### OIL, DRAGONS BLOOD II\* (N/A)

No additional information available

#### ETHYL VANILLIN (121-32-4)

No additional information available

#### BENZYL BENZOATE (120-51-4)

No additional information available

#### VANILLIN (121-33-5)

No additional information available

# OIL, DRAGONS BLOOD II\*

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<b>ALPHA TERPINEOL (98-55-5)</b>	
No additional information available	
<b>GERANIOL (106-24-1)</b>	
No additional information available	
<b>GERANYL ACETATE (105-87-3)</b>	
No additional information available	
<b>PHENYLETHYL ALCOHOL (60-12-8)</b>	
No additional information available	
<b>3,5,5-Trimethylhexyl acetate (58430-94-7)</b>	
No additional information available	
<b>D-LIMONENE (5989-27-5)</b>	
No additional information available	
<b>CITRAL (5392-40-5)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
Local name	Citral
ACGIH OEL TWA [ppm]	5 ppm (IFV - Inhalable fraction and vapor)
Remark (ACGIH)	TLV® Basis: Body weight eff; URT irr; eye dam. Notations: Skin; DSEN; A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2023
<b>METHYL ANTHRANILATE (134-20-3)</b>	
No additional information available	
<b>COUMARIN (91-64-5)</b>	
No additional information available	

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.  
Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Protective gloves

#### Eye protection:

Safety glasses

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Liquid  
Color : AMBER TO DARK AMBER  
Odor : CHARACTERISTIC, MATCHING RETAINER SAMPLE  
Odor threshold : No data available  
pH : No data available

# OIL, DRAGONS BLOOD II\*

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 77 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: 1.033 (1.023 – 1.043)
Solubility	: Insoluble.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

### 9.2. Other information

Refractive index : 1.532 (1.522 – 1.542)

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

ATE US (oral)	1243.734 mg/kg body weight
<b>ETHYL VANILLIN (121-32-4)</b>	
LD50 oral rat	> 3160 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Remarks on results: other:
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
ATE US (oral)	3000 mg/kg body weight
<b>BENZYL BENZOATE (120-51-4)</b>	
LD50 oral rat	> 2000 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 2000 mg/kg bw/day (Modification of Draize 1959 method, 4 h, Rabbit, Experimental value, Dermal)

# OIL, DRAGONS BLOOD II\*

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<b>BENZYL BENZOATE (120-51-4)</b>	
ATE US (oral)	1160 mg/kg body weight
<b>VANILLIN (121-33-5)</b>	
LD50 oral rat	3300 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
ATE US (oral)	3300 mg/kg body weight
ATE US (dermal)	2600 mg/kg body weight
<b>ALPHA TERPINEOL (98-55-5)</b>	
LD50 oral rat	4300 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 2900 - 5700
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
ATE US (oral)	4300 mg/kg body weight
<b>GERANIOL (106-24-1)</b>	
ATE US (oral)	3600 mg/kg body weight
<b>GERANYL ACETATE (105-87-3)</b>	
LD50 oral rat	6300 mg/kg (Rat, Oral)
ATE US (oral)	6300 mg/kg body weight
<b>PHENYLETHYL ALCOHOL (60-12-8)</b>	
LD50 oral rat	1603 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	2535 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 4.63 mg/l (4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s))
ATE US (oral)	500 mg/kg body weight
<b>3,5,5-Trimethylhexyl acetate (58430-94-7)</b>	
ATE US (oral)	4250 mg/kg body weight
<b>D-LIMONENE (5989-27-5)</b>	
LD50 oral rat	> 2000 mg/kg body weight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 5000 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Read-across, Dermal, 7 day(s))
<b>CITRAL (5392-40-5)</b>	
LD50 oral rat	≈ 6800 mg/kg body weight Animal: rat
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Remarks on results: other:
<b>METHYL ANTHRANILATE (134-20-3)</b>	
ATE US (oral)	2780 mg/kg body weight
<b>COUMARIN (91-64-5)</b>	
LD50 oral rat	293 mg/kg body weight Animal: rat, Guideline: other:
LD50 dermal rat	293 mg/kg body weight Animal: rat, Guideline: other:
ATE US (oral)	290 mg/kg body weight
ATE US (dermal)	293 mg/kg body weight

Skin corrosion/irritation : Causes skin irritation.  
Serious eye damage/irritation : Causes serious eye irritation.  
Respiratory or skin sensitization : May cause an allergic skin reaction.  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified

<b>CITRAL (5392-40-5)</b>	
NOAEL (chronic,oral,animal/male,2 years)	60 mg/kg body weight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies), Remarks on results: other:

# OIL, DRAGONS BLOOD II\*

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<b>COUMARIN (91-64-5)</b>	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

<b>ALPHA TERPINEOL (98-55-5)</b>	
NOAEL (oral,rat,90 days)	≥ 314 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)

<b>GERANYL ACETATE (105-87-3)</b>	
NOAEL (oral,rat,90 days)	2000 mg/kg body weight Animal: rat, Guideline: other:

<b>CITRAL (5392-40-5)</b>	
LOAEC (inhalation,rat,gas,90 days)	68 ppm Animal: rat, Animal sex: female
NOAEL (oral,rat,90 days)	100 mg/kg body weight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
NOAEC (inhalation,rat,gas,90 days)	34 ppm Animal: rat, Animal sex: female
NOAEL (subchronic,oral,animal/male,90 days)	60 mg/kg body weight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

<b>COUMARIN (91-64-5)</b>	
NOAEL (subchronic,oral,animal/female,90 days)	> 138.3 mg/kg body weight Animal: mouse, Animal sex: female

Aspiration hazard : May be fatal if swallowed and enters airways.

Viscosity, kinematic : No data available

Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Eye irritation.

Symptoms/effects after ingestion : Risk of lung edema.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

<b>ETHYL VANILLIN (121-32-4)</b>	
LC50 - Fish [1]	87.6 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	26.2 mg/l Test organisms (species): Daphnia magna
LOEC (chronic)	10 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	5.9 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

<b>BENZYL BENZOATE (120-51-4)</b>	
LC50 - Fish [1]	2.32 mg/l (EU Method C.1, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	3.09 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)

<b>VANILLIN (121-33-5)</b>	
LC50 - Fish [1]	57 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value)
EC50 - Crustacea [1]	36.79 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
LC50 - Fish [2]	123 mg/l Test organisms (species): Pimephales promelas

# OIL, DRAGONS BLOOD II\*

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<b>VANILLIN (121-33-5)</b>	
ErC50 algae	120 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
LOEC (chronic)	10 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	5.9 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
<b>ALPHA TERPINEOL (98-55-5)</b>	
LC50 - Fish [1]	70 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	73 mg/l Test organisms (species): Daphnia magna
<b>GERANYL ACETATE (105-87-3)</b>	
LC50 - Fish [1]	68.12 mg/l (DIN 38412: German standard methods for the examination of water, waste water and sludge, 96 h, Leuciscus idus, Static system, Fresh water, Read-across)
EC50 - Crustacea [1]	14.1 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
<b>PHENYLETHYL ALCOHOL (60-12-8)</b>	
LC50 - Fish [1]	215 – 464 mg/l (DIN 38412: German standard methods for the examination of water, waste water and sludge, 96 h, Leuciscus idus, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	287.17 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	1300 mg/l (DIN 38412: German standard methods for the examination of water, waste water and sludge, 72 h, Desmodemus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)
<b>D-LIMONENE (5989-27-5)</b>	
LC50 - Fish [1]	720 µg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value)
EC50 - Crustacea [1]	0.307 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, GLP)
LC50 - Fish [2]	702 µg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [2]	0.51 mg/l Test organisms (species): Daphnia magna
<b>CITRAL (5392-40-5)</b>	
LC50 - Fish [1]	6.78 mg/l Test organisms (species): Leuciscus idus
EC50 - Crustacea [1]	6.8 mg/l Test organisms (species): Daphnia magna
<b>COUMARIN (91-64-5)</b>	
LC50 - Fish [1]	2.94 mg/l Test organisms (species):
EC50 - Crustacea [1]	8012 mg/l Test organisms (species): Daphnia sp.
LC50 - Fish [2]	1324 mg/l Test organisms (species):
NOEC (chronic)	0.5 mg/l Test organisms (species): Duration: '21 d'
NOEC chronic fish	0.191 mg/l Test organisms (species): Duration: '30 d'

### 12.2. Persistence and degradability

<b>BENZYL BENZOATE (120-51-4)</b>	
Persistence and degradability	Readily biodegradable in water.
<b>VANILLIN (121-33-5)</b>	
Persistence and degradability	Readily biodegradable in water.
<b>GERANYL ACETATE (105-87-3)</b>	
Persistence and degradability	Readily biodegradable in water.
ThOD	2.6 g O <sub>2</sub> /g substance
<b>PHENYLETHYL ALCOHOL (60-12-8)</b>	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.45 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	2.5 g O <sub>2</sub> /g substance
ThOD	2.6 g O <sub>2</sub> /g substance
<b>D-LIMONENE (5989-27-5)</b>	
Persistence and degradability	Readily biodegradable in water.



# OIL, DRAGONS BLOOD II\*

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<b>D-LIMONENE (5989-27-5)</b>	
ThOD	3.29 g O <sub>2</sub> /g substance

### 12.3. Bioaccumulative potential

<b>BENZYL BENZOATE (120-51-4)</b>	
BCF - Fish [1]	193.4 l/kg (BCFBAF v3.01, Pisces, Calculated value)
Partition coefficient n-octanol/water (Log Pow)	3.97 (Experimental value, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

<b>VANILLIN (121-33-5)</b>	
Partition coefficient n-octanol/water (Log Pow)	1.17 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

<b>GERANYL ACETATE (105-87-3)</b>	
BCF - Other aquatic organisms [1]	1500 (Estimated value)
Partition coefficient n-octanol/water (Log Pow)	4.04 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method)
Bioaccumulative potential	Potential for bioaccumulation (4 ≤ Log Kow ≤ 5).

<b>PHENYLETHYL ALCOHOL (60-12-8)</b>	
Partition coefficient n-octanol/water (Log Pow)	1.3 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

<b>D-LIMONENE (5989-27-5)</b>	
BCF - Fish [1]	864.8 l/kg (BCFBAF v3.01, Pisces, QSAR, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	4.38 (Experimental value, Equivalent or similar to OECD 117, 37 °C)
Bioaccumulative potential	Potential for bioaccumulation (4 ≤ Log Kow ≤ 5).

### 12.4. Mobility in soil

<b>BENZYL BENZOATE (120-51-4)</b>	
Surface tension	27 mN/m (210 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.8 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)
Ecology - soil	Low potential for mobility in soil.

<b>VANILLIN (121-33-5)</b>	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.438 (log Koc, Experimental value)
Ecology - soil	Low potential for mobility in soil.

<b>GERANYL ACETATE (105-87-3)</b>	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.06 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Low potential for mobility in soil.

<b>PHENYLETHYL ALCOHOL (60-12-8)</b>	
Surface tension	59.7 mN/m (20 °C, 1 g/l, OECD 115: Surface Tension of Aqueous Solutions)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.5 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)
Ecology - soil	Highly mobile in soil.

<b>D-LIMONENE (5989-27-5)</b>	
Surface tension	No data available in the literature
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.049 – 3.801 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Low potential for mobility in soil.

### 12.5. Other adverse effects

No additional information available

# OIL, DRAGONS BLOOD II\*

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

### SECTION 14: Transport information

#### Department of Transportation (DOT)

In accordance with DOT

Transport document description (DOT) : NA1993 Combustible liquid, n.o.s. (d-Limonene, Alpha Terpineol) - Regulated for Bulk only, Comb Liq, III

UN-No.(DOT) : NA1993

Proper Shipping Name (DOT) : Combustible liquid, n.o.s.  
(d-Limonene, Alpha Terpineol) - Regulated for Bulk only

Class (DOT) : Comb Liq - Combustible liquid

Packing group (DOT) : III - Minor Danger

DOT Packaging Non Bulk (49 CFR 173.xxx) : 203

DOT Packaging Bulk (49 CFR 173.xxx) : 241

DOT Symbols : D - Proper shipping name for domestic use only, or to and from Canada,G - Identifies PSN requiring a technical name

DOT Special Provisions (49 CFR 172.102) : 148 - For domestic transportation, this entry directs to § 173.66 for: a. The standards for transporting a single bulk hazardous material for blasting by cargo tank motor vehicles (CTMV); and b. The standards for CTMVs capable of transporting multiple hazardous materials for blasting in bulk and non-bulk packagings (i.e, a multipurpose bulk truck (MBT)).  
IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).  
T1 - 1.5 178.274(d)(2) Normal..... 178.275(d)(2)  
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling =  $97 / 1 + a (tr - tf)$  Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

DOT Packaging Exceptions (49 CFR 173.xxx) : 150

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 L

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

Other information : No supplementary information available.

#### Transportation of Dangerous Goods

Not applicable

"

#### Transport by sea

Not applicable

#### Air transport

Not applicable

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

# OIL, DRAGONS BLOOD II\*

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### ETHYL VANILLIN (121-32-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### BENZYL BENZOATE (120-51-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### ALPHA TERPINEOL (98-55-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### 3,5,5-Trimethylhexyl acetate (58430-94-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### METHYL ANTHRANILATE (134-20-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### COUMARIN (91-64-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

## 15.2. International regulations

### CANADA

#### ETHYL VANILLIN (121-32-4)

Listed on the Canadian DSL (Domestic Substances List)

#### BENZYL BENZOATE (120-51-4)

Listed on the Canadian DSL (Domestic Substances List)

#### VANILLIN (121-33-5)

Listed on the Canadian DSL (Domestic Substances List)

#### ALPHA TERPINEOL (98-55-5)

Listed on the Canadian DSL (Domestic Substances List)

#### GERANYL ACETATE (105-87-3)

Listed on the Canadian DSL (Domestic Substances List)

#### PHENYLETHYL ALCOHOL (60-12-8)

Listed on the Canadian DSL (Domestic Substances List)

#### 3,5,5-Trimethylhexyl acetate (58430-94-7)

Listed on the Canadian DSL (Domestic Substances List)

#### CITRAL (5392-40-5)

Listed on the Canadian DSL (Domestic Substances List)

#### METHYL ANTHRANILATE (134-20-3)

Listed on the Canadian DSL (Domestic Substances List)

#### COUMARIN (91-64-5)

Listed on the Canadian DSL (Domestic Substances List)

### EU-Regulations

No additional information available

### National regulations

#### VANILLIN (121-33-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active  
Listed on INSQ (Mexican National Inventory of Chemical Substances)

#### GERANYL ACETATE (105-87-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active  
Listed on INSQ (Mexican National Inventory of Chemical Substances)

# OIL, DRAGONS BLOOD II\*

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### PHENYLETHYL ALCOHOL (60-12-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active  
Listed on INSQ (Mexican National Inventory of Chemical Substances)

### CITRAL (5392-40-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active  
Listed on INSQ (Mexican National Inventory of Chemical Substances)

### 15.3. US State regulations

This product can expose you to methanol - impurity, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).



#### WARNING:

This product can expose you to methyl eugenol, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

This product can expose you to beta-myrcene, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## SECTION 16: Other information

Revision date : 03/05/2024

Full text of H-phrases:

H226	Flammable liquid and vapor
H227	Combustible liquid
H301	Toxic if swallowed
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H311	Toxic in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H320	Causes eye irritation
H373	May cause damage to organs through prolonged or repeated exposure

SDS US (GHS HazCom 2012) - Lebermuth

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*