

Safety Data Sheet

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

Issue date: 09/27/2021 Version: 1.0

SECTION 1: Identification

Identification

Product form : Mixture

Product name : OIL. ESCAPE 2.0*

CAS-No. N/A Product code : 90-3045-44

Recommended use and restrictions on use

No additional information available

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 - 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

Classification of the substance or mixture

GHS US classification

Flammable liquids Category 4 Skin corrosion/irritation Category 2 Serious eye damage/eye irritation Category 1 Skin sensitization, Category 1

Germ cell mutagenicity Category 2 Carcinogenicity Category 2

Precautionary statements (GHS US)

Aspiration hazard Category 1

Combustible liquid Causes skin irritation Causes serious eye damage

May cause an allergic skin reaction Suspected of causing genetic defects Suspected of causing cancer

May be fatal if swallowed and enters airways

GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)





GHS05 GHS07

GHS08

Signal word (GHS US) : Danger

Combustible liquid Hazard statements (GHS US)

May be fatal if swallowed and enters airways

Causes skin irritation

May cause an allergic skin reaction Causes serious eye damage Suspected of causing genetic defects

Suspected of causing cancer

: Obtain special instructions before use.

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

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

Avoid breathing dust/fume/gas/mist/vapors/spray. Wash hands, forearms and face thoroughly after handling.

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 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.

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If exposed or concerned: Get medical advice/attention.

Immediately call a poison center or doctor.

Specific treatment (see supplemental first aid instruction on this label).

Do NOT induce vomiting.

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

Other hazards which do not result in classification

No additional information available

Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

Substances

Not applicable

3.2. **Mixtures**

Name	Product identifier	%	GHS US classification
CEDARWOOD OIL	(CAS-No.) 8000-27-9	25 – 50	Asp. Tox. 1, H304
LEMONGRASS OIL	(CAS-No.) 8007-02-1	10 – 25	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1B, H317
LITSEA CUBEBA OIL	(CAS-No.) 68855-99-2	10 – 25	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Asp. Tox. 1, H304
BASIL OIL	(CAS-No.) 8015-73-4	10 – 25	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Skin Sens. 1, H317 Muta. 2, H341 Carc. 2, H351
TANGERINE OIL	(CAS-No.) 8016-85-1	10 – 25	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304
YLANG YLANG OIL III	(CAS-No.) 8006-81-3	1 – 5	Flam. Liq. 4, H227 Skin Sens. 1B, H317 Asp. Tox. 1, H304

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

SECTION 4: First-aid measures

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.

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to First-aid measures after eye contact

do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Do not induce vomiting. Call a physician immediately.

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 : Serious damage to eyes. Symptoms/effects after ingestion : Risk of lung edema.

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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. Obtain

flames and other ignition sources. No smoking. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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

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, ESCAPE 2.0* (N/A)

No additional information available

BASIL OIL (8015-73-4)

No additional information available

CEDARWOOD OIL (8000-27-9)

No additional information available

LEMONGRASS OIL (8007-02-1)

No additional information available

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LITSEA CUBEBA OIL (68855-99-2)

No additional information available

TANGERINE OIL (8016-85-1)

No additional information available

YLANG YLANG OIL III (8006-81-3)

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:

Wear respiratory protection.



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

: YELLOW TO AMBER

Odor : CHARACTERISTIC, MATCHING RETAINER SAMPLE

Odor threshold : No data available pH : No data available Melting point : Not applicable Freezing point : No data available Boiling point : No data available

Flash point : 72 °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 : 0.917 (0.907 – 0.927)

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

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Oxidizing properties : No data available

9.2. Other information

Refractive index : 1.494 (1.484 – 1.504)

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) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

BASIL OIL (8015-73-4)		
ATE US (oral)	1340 mg/kg body weight	
CEDARWOOD OIL (8000-27-9)		
LD50 oral rat	> 5000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Remarks on results: not determinable due to absence of adverse toxic effects	
LD50 dermal rabbit	> 5000 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)	
LEMONGRASS OIL (8007-02-1)		
ATE US (dermal)	3127 mg/kg body weight	
LITSEA CUBEBA OIL (68855-99-2)		
ATE US (dermal)	4800 mg/kg body weight	
Skin corrosion/irritation	: Causes skin irritation.	

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye damage.

Respiratory or skin sensitization : May cause an allergic skin reaction.

Germ cell mutagenicity : Suspected of causing genetic defects.

Carcinogenicity : Suspected of causing cancer.

Reproductive toxicity : Not classified

CEDARWOOD OIL (8000-27-9)	
NOAEL (animal/female, F1)	207 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Remarks on results: other:

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

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CEDARWOOD OIL (8000-27-9)	
NOAEL (oral,rat,90 days)	< 207 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other:
Aspiration hazard	: May be fatal if swallowed and enters airways.
/iscosity, kinematic	: No data available
Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Serious damage to eyes.
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.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

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

Not regulated

Transportation of Dangerous Goods

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

BASIL OIL (8015-73-4)

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

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CEDARWOOD OIL (8000-27-9)

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

LEMONGRASS OIL (8007-02-1)

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

LITSEA CUBEBA OIL (68855-99-2)

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

TANGERINE OIL (8016-85-1)

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

YLANG YLANG OIL III (8006-81-3)

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

15.2. International regulations

CANADA

BASIL OIL (8015-73-4)

Listed on the Canadian DSL (Domestic Substances List)

CEDARWOOD OIL (8000-27-9)

Listed on the Canadian DSL (Domestic Substances List)

LEMONGRASS OIL (8007-02-1)

Listed on the Canadian DSL (Domestic Substances List)

LITSEA CUBEBA OIL (68855-99-2)

Listed on the Canadian DSL (Domestic Substances List)

TANGERINE OIL (8016-85-1)

Listed on the Canadian DSL (Domestic Substances List)

YLANG YLANG OIL III (8006-81-3)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

National regulations

No additional information available

15.3. US State regulations

This product can expose you to estragole, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

This product can expose you to myrcene, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.



This product can expose you to eugenyl methyl ether, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

This product can expose you to safrole, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

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Full text of H-phrases:

Elammable liquid and vapor
Flammable liquid and vapor
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 damage
Causes serious eye irritation
Suspected of causing genetic defects
Suspected of causing cancer

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.

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Issue date: 03/01/2019 Revision date: 04/20/2023 Supersedes: 06/29/2020 Version: 1.3

SECTION 1: Identification

Identification

Product form : Mixture

Product name : OIL, TENSION & STRESS BUSTER*

CAS-No. N/A Product code : 90-3024-42

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 - 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

Classification of the substance or mixture

GHS US classification

Flammable liquids Category 4 Skin corrosion/irritation Category 2 Serious eye damage/eye irritation Category 1

Skin sensitization, Category 1 Reproductive toxicity Category 2

Specific target organ toxicity (repeated exposure)

Category 2

Aspiration hazard Category 1

Combustible liquid Causes skin irritation

Causes serious eye damage May cause an allergic skin reaction

Suspected of damaging fertility or the unborn child

May cause damage to organs through prolonged or repeated exposure

May be fatal if swallowed and enters airways

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Signal word (GHS US)

Hazard pictograms (GHS US)



GHS05





: Danger

Combustible liquid Hazard statements (GHS US)

May be fatal if swallowed and enters airways

Causes skin irritation

May cause an allergic skin reaction Causes serious eve damage

Suspected of damaging fertility or the unborn child

May cause damage to organs through prolonged or repeated exposure

Obtain special instructions before use. Precautionary statements (GHS US)

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

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

Do not breathe dust/fume/gas/mist/vapors/spray. Avoid breathing dust/fume/gas/mist/vapors/sprav. Wash hands, forearms and face thoroughly after handling.

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 on skin: Wash with plenty of water.

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IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If exposed or concerned: Get medical advice/attention.

Immediately call a poison center or doctor.

Get medical advice/attention if you feel unwell.

Specific treatment (see supplemental first aid instruction on this label).

Do NOT induce vomiting.

If skin irritation occurs: Get medical advice/attention.

If skin irritation or rash occurs: 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
CITRAL	(CAS-No.) 5392-40-5	25 – 50	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 STOT RE 2, H373
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
GERANIOL	(CAS-No.) 106-24-1	5 – 10	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317
trans-trans-alpha-Farnesene	(CAS-No.) 502-61-4	1 – 5	Asp. Tox. 1, H304
GERANYL ACETATE	(CAS-No.) 105-87-3	1 – 5	Skin Irrit. 2, H315 Skin Sens. 1B, H317
BETA-CARYOPHYLLENE	(CAS-No.) 87-44-5	1 – 5	Asp. Tox. 1, H304
LINALOOL	(CAS-No.) 78-70-6	1 – 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1B, H317
GAMMA-TERPINENE	(CAS-No.) 99-85-4	1 – 5	Flam. Liq. 3, H226 Repr. 2, H361 Asp. Tox. 1, H304
I-Limonene	(CAS-No.) 5989-54-8	1 – 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304
BENZYL BENZOATE	(CAS-No.) 120-51-4	1 – 5	Acute Tox. 4 (Oral), H302
ISOEUGENOL	(CAS-No.) 97-54-1	0.1 – 1	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1A, H317 STOT SE 3, H335
Citronellal	(CAS-No.) 106-23-0	0.1 – 1	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
p-Methylanisole	(CAS-No.) 104-93-8	0.1 – 1	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Repr. 2, H361

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

SECTION 4: First-aid measures

Description of first aid measures

First-aid measures general : Call a physician immediately.

: Remove person to fresh air and keep comfortable for breathing. First-aid measures after inhalation

Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: First-aid measures after skin contact

Get medical advice/attention.

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to First-aid measures after eye contact

do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Do not induce vomiting. Call a physician immediately.

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 : Serious damage to eyes. Symptoms/effects after ingestion : Risk of lung edema.

Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

Suitable (and unsuitable) extinguishing media

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

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

Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

: Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin **Emergency procedures**

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.

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.

Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

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.

Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed Hygiene measures

out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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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, TENSION & STRESS BUSTER* (N/A)	
No additional information available	
LINALOOL (78-70-6)	
No additional information available	
D-LIMONENE (5989-27-5)	
No additional information available	
GAMMA-TERPINENE (99-85-4)	
No additional information available	
GERANIOL (106-24-1)	
No additional information available	
Citronellal (106-23-0)	
No additional information available	
I-Limonene (5989-54-8)	
No additional information available	
ISOEUGENOL (97-54-1)	
No additional information available	
CITRAL (5392-40-5)	
USA - ACGIH - Occupational Exposure Limits	
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 2021
BETA-CARYOPHYLLENE (87-44-5)	
No additional information available	
GERANYL ACETATE (105-87-3)	
No additional information available	
trans-trans-alpha-Farnesene (502-61-4)	
No additional information available	
BENZYL BENZOATE (120-51-4)	
No additional information available	
p-Methylanisole (104-93-8)	
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:

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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 : YELLOW TO AMBER TO ORANGE

Odor : CHARACTERISTIC, MATCHING RETAINER SAMPLE

Odor threshold : No data available pH : No data available Melting point : Not applicable Freezing point : No data available Boiling point : No data available

Flash point : 67 °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 : 0.888 (0.878 – 0.898)

Solubility : Insoluble.

Partition coefficient n-octanol/water (Log Pow) : No data available : No data available Auto-ignition temperature Decomposition temperature : No data available Viscosity, kinematic : No data available : No data available Viscosity, dynamic **Explosion limits** : No data available Explosive properties : No data available Oxidizing properties : No data available

9.2. Other information

Refractive index : 1.482 (1.472 – 1.492)

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.

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STOT-single exposure

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

SECTION 11: Toxicological information		
11.1. Information on toxicological effects		
Acute toxicity (oral)	: Not classified	
Acute toxicity (dermal)	: Not classified	
Acute toxicity (inhalation)	: Not classified	
LINAL COL (70 70 0)		
LINALOOL (78-70-6) ATE US (oral)	2790 mg/kg body weight	
,	2790 mg/kg body weight	
D-LIMONENE (5989-27-5)		
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))	
GAMMA-TERPINENE (99-85-4)		
ATE US (oral)	3850 mg/kg body weight	
GERANIOL (106-24-1)		
ATE US (oral)	3600 mg/kg body weight	
Citronellal (106-23-0)		
ATE US (oral)	2500 mg/kg body weight	
ATE US (dermal)	2500 mg/kg body weight	
	2000 mg/ng 2001, morgin	
ISOEUGENOL (97-54-1)	1	
ATE US (oral)	1500 mg/kg body weight	
ATE US (dermal)	1912 mg/kg body weight	
ATE US (gases)	4500 ppmV/4h	
ATE US (vapors)	11 mg/l/4h	
ATE US (dust, mist)	1.5 mg/l/4h	
CITRAL (5392-40-5)		
LD50 oral rat	≈ 6800 mg/kg body weight Animal: rat	
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Remarks on results: other:	
ATE US (dermal)	2250 mg/kg body weight	
BENZYL BENZOATE (120-51-4)		
ATE US (oral)	1500 mg/kg body weight	
ATE US (dermal)	4000 mg/kg body weight	
p-Methylanisole (104-93-8)	1000 mg/ng 2021, morgin	
ATE US (oral)	1900 mg/kg body weight	
, ,		
Skin corrosion/irritation	: Causes skin irritation.	
Serious eye damage/irritation	: Causes serious eye damage.	
Respiratory or skin sensitization	: May cause an allergic skin reaction.	
Germ cell mutagenicity	: Not classified	
Carcinogenicity	: Not classified	
D-LIMONENE (5989-27-5)		
IARC group	3 - Not classifiable	
CITRAL (5392-40-5)		
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:	
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.	

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: Not classified

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ISOEUGENOL (97-54-1)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

CITRAL (5392-40-5)	
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.

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 : Serious damage to eyes. 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.

D-LIMONENE (5989-27-5)	
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, Semistatic 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
ErC50 algae	0.32 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

Citronellal (106-23-0)	
LC50 - Fish [1]	22 mg/l (LC50; 96 h)
EC50 - Crustacea [2]	8.7 mg/l (EC50; 48 h)
Threshold limit - Algae [1]	7.5 mg/l (EC50; 72 h)

CITRAL (5392-40-5)	
LC50 - Fish [1]	6.78 mg/l Test organisms (species): Leuciscus idus
EC50 - Crustacea [1]	6.8 mg/l Test organisms (species): Daphnia magna

12.2. Persistence and degradability

D-LIMONENE (5989-27-5)		
Persistence and degradability	Readily biodegradable in water.	
ThOD	3.29 g O₂/g substance	

Citronellal (106-23-0)	
Persistence and degradability	Readily biodegradable in water. Photodegradation in the air.
Chemical oxygen demand (COD)	2.67 g O₂/g substance
ThOD	2.9 g O ₂ /g substance

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I-Limonene (5989-54-8)	
Persistence and degradability	Readily biodegradable in water.
ThOD	3.29 g O₂/g substance

12.3. Bioaccumulative potential

D-LIMONENE (5989-27-5)	
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).

Citronellal (106-23-0)	
BCF - Other aquatic organisms [1]	280 (BCF)
Partition coefficient n-octanol/water (Log Pow)	3.53 – 3.62
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
I-Limonene (5989-54-8)	
Partition coefficient n-octanol/water (Log Pow)	4.83 (QSAR)
Bioaccumulative potential	Bioaccumable.

12.4. Mobility in soil

D-LIMONENE (5989-27-5)	
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.

I-Limonene (5989-54-8)	
Ecology - soil	Adsorbs into the soil.

12.5. Other adverse effects

No additional information available

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, LINALOOL) - Regulated for Bulk Only,

Comb Liq, III

UN-No.(DOT) : NA1993

Proper Shipping Name (DOT) : Combustible liquid, n.o.s.

(D-LIMONENE, LINALOOL) - 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

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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 : 60 L

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 220 L

CFR 175.75)

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

No additional information available

15.2. International regulations

CANADA

LINALOOL (78-70-6)

Listed on the Canadian DSL (Domestic Substances List)

D-LIMONENE (5989-27-5)

Listed on the Canadian DSL (Domestic Substances List)

GAMMA-TERPINENE (99-85-4)

Listed on the Canadian DSL (Domestic Substances List)

GERANIOL (106-24-1)

Listed on the Canadian DSL (Domestic Substances List)

Citronellal (106-23-0)

Listed on the Canadian DSL (Domestic Substances List)

I-Limonene (5989-54-8)

Listed on the Canadian DSL (Domestic Substances List)

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ISOEUGENOL (97-54-1)

Listed on the Canadian DSL (Domestic Substances List)

CITRAL (5392-40-5)

Listed on the Canadian DSL (Domestic Substances List)

BETA-CARYOPHYLLENE (87-44-5)

Listed on the Canadian DSL (Domestic Substances List)

GERANYL ACETATE (105-87-3)

Listed on the Canadian DSL (Domestic Substances List)

trans-trans-alpha-Farnesene (502-61-4)

Listed on the Canadian DSL (Domestic Substances List)

BENZYL BENZOATE (120-51-4)

Listed on the Canadian DSL (Domestic Substances List)

p-Methylanisole (104-93-8)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

LINALOOL (78-70-6)

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

D-LIMONENE (5989-27-5)

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

GAMMA-TERPINENE (99-85-4)

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

GERANIOL (106-24-1)

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

Citronellal (106-23-0)

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

I-Limonene (5989-54-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

ISOEUGENOL (97-54-1)

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)

BETA-CARYOPHYLLENE (87-44-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

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)

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trans-trans-alpha-Farnesene (502-61-4)

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

BENZYL BENZOATE (120-51-4)

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

p-Methylanisole (104-93-8)

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 myrcene, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

Revision date : 04/20/2023

Full text of H-phrases:

Combustible liquid
Harmful if swallowed
May be fatal if swallowed and enters airways
Harmful in contact with skin
Causes skin irritation
May cause an allergic skin reaction
Causes serious eye damage
Causes serious eye irritation
Harmful if inhaled
May cause respiratory irritation
Suspected of damaging fertility or the unborn child
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.

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