

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Product name PEPPERMINT
 CAS-No. : MIXTURE
 Part numbers: 34-7600-11, 34-7601-11, 34-7626-11, 34-7626-11, 90-9013, 90-9014, 90-9015, 90-9016

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Vaportek, Inc.
 W226N6339 Village Drive
 Sussex, Wisconsin 53089
 USA
 800.237.6367

1.4. Emergency telephone number

Emergency number : Regulatory Department
 Hours of operation: 7:00AM - 4:00PM Mon-Fri. (CST)
 Domestic North America (262)246-5060

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquids Category 4	H227	Combustible liquid
Skin corrosion/irritation Category 2	H315	Causes skin irritation
Serious eye damage/eye irritation Category 2B	H320	Causes eye irritation
Skin sensitization, Category 1	H317	May cause an allergic skin reaction
Carcinogenicity Category 2	H351	Suspected of causing cancer
Reproductive toxicity Category 2	H361	Suspected of damaging fertility or the unborn child

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Warning

Hazard statements (GHS US) :

H227 - Combustible liquid
 H315 - Causes skin irritation
 H317 - May cause an allergic skin reaction
 H320 - Causes eye irritation
 H351 - Suspected of causing cancer
 H361 - Suspected of damaging fertility or the unborn child

Precautionary statements (GHS US) :

P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
 P264 - Wash hands, forearms and face thoroughly after handling.
 P272 - Contaminated work clothing must not be allowed out of the workplace.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P302+P352 - If on skin: Wash with plenty of water.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

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contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P363 - Wash contaminated clothing before reuse.
P370+P378 - In case of fire: Use media other than water to extinguish.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - 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
MENTHOL	(CAS-No.) 89-78-1	30 – 70	Skin Irrit. 2, H315 Eye Irrit. 2B, H320
MENTHOL	(CAS-No.) 89-78-1	10 – 30	Skin Irrit. 2, H315 Eye Irrit. 2B, H320
MENTHONE	(CAS-No.) 89-80-5	10 – 30	Skin Irrit. 2, H315 Skin Sens. 1B, H317
cis-5-Methyl-2-(1-methylethyl)cyclohexanone	(CAS-No.) 491-07-6	10 – 30	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Skin Sens. 1B, H317
d,l-Isomenthone	(CAS-No.) 491-07-6	1 – 5	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Skin Sens. 1B, H317
(+)-Neomenthol	(CAS-No.) 2216-52-6	1 – 5	Skin Irrit. 2, H315 Eye Irrit. 2B, H320
l-Limonene	(CAS-No.) 5989-54-8	1 – 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304
MENTHONE RACEMIC	(CAS-No.) 89-80-5	1 – 5	Flam. Liq. 4, H227 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Skin Sens. 1B, H317
EUCALYPTOL	(CAS-No.) 470-82-6	1 – 5	Flam. Liq. 3, H226 Eye Irrit. 2B, H320 Skin Sens. 1B, H317
Pulegone	(CAS-No.) 89-82-7	0.5 – 1	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Carc. 2, H351
Myrcene	(CAS-No.) 123-35-3	< 0.5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Carc. 2, H351 Asp. Tox. 1, H304
delta-3-Carene	(CAS-No.) 13466-78-9	< 0.5	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304

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Name	Product identifier	%	GHS US classification
p-Mentha-1,4-diene	(CAS-No.) 99-85-4	< 0.5	Flam. Liq. 3, H226 Repr. 2, H361 Asp. Tox. 1, H304

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 : IF exposed or concerned: Get medical advice/attention.
- 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 : Call a poison center/doctor/physician if you feel unwell.

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 : Mild eye irritation.

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.

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 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.

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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

MENTHOL (89-78-1)
Not applicable
EUCALYPTOL (470-82-6)
Not applicable
Pulegone (89-82-7)
Not applicable
MENTHONE RACEMIC (89-80-5)
Not applicable
MENTHOL CRYSTALS (89-78-1)
Not applicable
Myrcene (123-35-3)
Not applicable
p-Mentha-1,4-diene (99-85-4)
Not applicable
ISO MENTHONE EXTRA (491-07-6)
Not applicable
(+)-Neomenthol (2216-52-6)
Not applicable
d,l-Isomenthone (491-07-6)
Not applicable
delta-3-Carene (13466-78-9)
Not applicable
l-Limonene (5989-54-8)
Not applicable
MENTHONE (89-80-5)
Not applicable

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 inadequate ventilation] wear respiratory protection.

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Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Mixture contains one or more component(s) which have the following colour(s): Colourless to light yellow Colourless On exposure to air: yellow Colourless to brown
Odor	: There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour: Lemon odour Mild odour Pine odour Floral odour Characteristic odour Strong odour Pleasant odour Sweet odour
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: ≈ 78.9 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
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

No additional information available

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

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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

MENTHOL (89-78-1)	
ATE US (oral)	2500 mg/kg body weight
EUCALYPTOL (470-82-6)	
ATE US (oral)	2480 mg/kg body weight
Pulegone (89-82-7)	
ATE US (oral)	470 mg/kg body weight
ATE US (dermal)	3090 mg/kg body weight
MENTHONE RACEMIC (89-80-5)	
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h
MENTHOL CRYSTALS (89-78-1)	
ATE US (oral)	2500 mg/kg body weight
ATE US (dust, mist)	5.3 mg/l/4h
Myrcene (123-35-3)	
LD50 oral rat	> 11390 mg/kg body weight Animal: rat
LD50 dermal rabbit	> 5000 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
ATE US (dermal)	5000 mg/kg body weight
p-Mentha-1,4-diene (99-85-4)	
ATE US (oral)	3650 mg/kg body weight
ISO MENTHONE EXTRA (491-07-6)	
ATE US (oral)	1690 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
(+)-Neomenthol (2216-52-6)	
ATE US (oral)	2500 mg/kg body weight
ATE US (dust, mist)	5.3 mg/l/4h
d,l-Isomenthone (491-07-6)	
ATE US (oral)	1690 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
delta-3-Carene (13466-78-9)	
ATE US (oral)	4800 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

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

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Pulegone (89-82-7)	
IARC group	2B - Possibly carcinogenic to humans

Myrcene (123-35-3)	
IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity : Suspected of damaging fertility or the unborn child.
STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Myrcene (123-35-3)	
LOAEL (oral,rat,90 days)	250 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
NOAEL (subchronic,oral,animal/male,90 days)	500 mg/kg body weight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
NOAEL (subchronic,oral,animal/female,90 days)	250 mg/kg body weight Animal: mouse, Animal sex: female, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

Aspiration hazard : Not classified
Viscosity, kinematic : No data available
Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact : Mild eye irritation.

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.

EUCALYPTOL (470-82-6)	
LC50 - Fish [1]	102 mg/l

Myrcene (123-35-3)	
LC50 - Fish [1]	0.92 mg/l
EC50 - Crustacea [1]	0.45 mg/l
NOEC chronic crustacea	0.12 mg/l

l-Limonene (5989-54-8)	
LC50 - Fish [1]	720 µg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	0.36 mg/l Test organisms (species): Daphnia magna
LC50 - Fish [2]	702 µg/l Test organisms (species): Pimephales promelas

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

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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

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

MENTHOL	CAS-No. 89-78-1	10 – 30%
EUCALYPTOL	CAS-No. 470-82-6	1 – 5%
Pulegone	CAS-No. 89-82-7	0.5 – 1%
MENTHONE RACEMIC	CAS-No. 89-80-5	1 – 5%
MENTHOL	CAS-No. 89-78-1	30 – 70%
Myrcene	CAS-No. 123-35-3	< 0.5%
p-Mentha-1,4-diene	CAS-No. 99-85-4	< 0.5%
cis-5-Methyl-2-(1-methylethyl)cyclohexanone	CAS-No. 491-07-6	10 – 30%
(+)-Neomenthol	CAS-No. 2216-52-6	1 – 5%
d,l-Isomenthone	CAS-No. 491-07-6	1 – 5%
delta-3-Carene	CAS-No. 13466-78-9	< 0.5%
l-Limonene	CAS-No. 5989-54-8	1 – 5%
MENTHONE	CAS-No. 89-80-5	10 – 30%

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

MENTHOL (89-78-1)

Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the EC Inventory

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EUCALYPTOL (470-82-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the EC Inventory

Pulegone (89-82-7)

Listed on IARC (International Agency for Research on Cancer)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the EC Inventory

MENTHONE RACEMIC (89-80-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the EC Inventory

MENTHOL CRYSTALS (89-78-1)

Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the EC Inventory

Myrcene (123-35-3)

Listed on IARC (International Agency for Research on Cancer)
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the EC Inventory

p-Mentha-1,4-diene (99-85-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the EC Inventory

ISO MENTHONE EXTRA (491-07-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the EC Inventory

(+)-Neomenthol (2216-52-6)

Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the EC Inventory

d,l-Isomenthone (491-07-6)

Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the EC Inventory

delta-3-Carene (13466-78-9)

Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the EC Inventory

l-Limonene (5989-54-8)

Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the EC Inventory
Listed on the Australian HSIS Consolidated List

MENTHONE (89-80-5)

Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the EC Inventory

SECTION 16: Other information

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Full text of H-phrases:

H226	Flammable liquid and vapor
H227	Combustible liquid
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H320	Causes eye irritation
H332	Harmful if inhaled
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child

SDS US

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.