



PHOENIX

Safety Data Sheet

This safety data sheet complies with the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Product code CIT0016
Product name CITRONELLA OIL JAVA

Issue date 26-Mar-2015

Revision date 19-Nov-2019

Version 5

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product code CIT0016
Product name CITRONELLA OIL JAVA

REACH registration number 01-2120741487-48-XXXX
EC No. 294-954-7
CAS No 8000-29-1 / 91771-61-8
Chemical Name Cymbopogon winterianus
Pure substance/mixture Substance
Contains Geraniol, Citronellal, Citronellol, l-Limonene

1.2. Relevant identified uses of the substance or mixture and uses advised against

Sold to the general public? No
Recommended Use Industry Use

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Supplier

Phoenix Aromas Europe Ltd.
Unit 2A Wyncolls Road
Severells Business Park
Colchester, Essex
CO4 9HU
Tel: (+44) 208 532 1022

For further information, please contact

Contact Point Fred Wise
E-mail address fwise@phoenixaromas.com

1.4. Emergency telephone number

Emergency telephone CHEMTREC

Emergency telephone - +1-703-741-5970	
Europe	CCN# 17256

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Aspiration toxicity	Category 1 - (H304)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 1 - (H318)
Skin sensitization	Category 1B - (H317)
Chronic aquatic toxicity	Category 2 - (H411)

2.2. Label Elements**Product identifier**

Contains Geraniol, Citronellal, Citronellol, l-Limonene

**Signal word**

Danger

Hazard statements

H304 - May be fatal if swallowed and enters airways

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

H411 - Toxic to aquatic life with long lasting effects

Contains Terpinolene, Geraniol, Caryophyllene EUH208 - May produce an allergic reaction

Precautionary Statements

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention

P273 - Avoid release to the environment

P501 - Dispose of contents/ container to an approved waste disposal plant

2.3. Other Hazards

H401 - Toxic to aquatic life H227 - Combustible liquid

SECTION 3: Composition/information on ingredients**3.1 Substances**

Chemical Name	EC No.	CAS No.	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Citronellal	Present	106-23-0	30 - <40	Aquatic Acute 2 (H401) (EFFA) Skin Sens. 1 (H317) (EFFA) Eye Irrit. 2 (H319) (EFFA) Skin Irrit. 2 (H315) (EFFA) Acute Tox. 5 (H303)(EFFA) Flam. Liq. 4 (H227)(EFFA)	No data available

				Acute Tox. 5 (H313) (EFFA)	
Geraniol	Present	106-24-1	20 - <30	Acute Aquatic 3 (H402) (EFFA) Acute Tox 5 (H303) (EFFA) Eye Damage 1 (H318)(EFFA) Skin Irr 2 (H315) (EFFA) Skin Sens 1 (H317)(EFFA)	No data available
Citronellol	Present	106-22-9	10 - <20	Aquatic Acute 2 (H401) (EFFA) Skin Sens. 1 (H317) (EFFA) Eye Irrit. 2 (H319) (EFFA) Skin Irrit. 2 (H315) (EFFA) Acute Tox. 5 (H303)(EFFA) Acute Tox. 5 (H313)(EFFA)	No data available
d-Limonene	Present	5989-27-5	1 - <10	Aspiration Hazard 1 (H304)(EFFA) Flam. Liq. 3 (H226)(EFFA) Skin Irrit. 2 (H315)(EFFA) Skin Sens. 1B (H317)(EFFA) Aquatic Acute 1 (H400)(EFFA) Aquatic Chronic 1 (H410)(EFFA)	No data available
Geranyl acetate	Present	105-87-3	1 - <10	Aquatic Acute 2 (H401) (EFFA) Skin Irrit. 2 (H315) (EFFA) Aquatic Chronic 3 (H412) (EFFA) Skin Sensit. 1 (H317) (EFFA)	No data available
Citronellyl acetate	Present	150-84-5	1 - <10	Aquatic Acute 2 (H401) (EFFA) Skin Irrit. 2 (H315) (EFFA) Aquatic Chronic 2 (H411) (EFFA)	No data available
(±)-β-Elemene	Present	33880-83-0	1 - <10	Not classified	No data available
Germacrene	-	37839-63-7	1 - <10	Not Classified	No data available
Elemol	Present	639-99-6	1 - <10	Not classified	No data available
Terpinolene	Present	586-62-9	1 - <10	Aquatic Acute 1 (H400) (EFFA) (EFFA) Aquatic Chronic 1 (H410) (EFFA) Asp. Tox. 1 (H304) (EFFA) Acute Tox. 5 (H303)(EFFA) Flam. Liq. 4 (H227)(EFFA) Skin Irrit. 3 (H316) (EFFA) Skin Sens. 1 (H317) (EFFA)	No data available
delta-Cadinene	-	483-76-1	1 - <10	Not Classified	No data available
Linalool	Present	78-70-6	0.1 - <1	Aquatic Acute 3 (H402) (EFFA) Eye Irrit. 2 (H319) (EFFA) Skin Irrit. 2 (H315) (EFFA) Acute Tox. 5 (H303)(EFFA) Flam. Liq. 4 (H227)(EFFA) Skin Sens. 1B (H317) (EFFA)	No data available
gamma-Cadinene	-	39029-41-9	0.1 - <1	Not classified	No data available
Geranial	Present	141-27-5	0.1 - <1	Aquatic Acute 2 (H401) (EFFA) Skin Sens. 1 (H317) (EFFA) Eye Irrit. 2	No data available

				(H319) (EFFA) Skin Irrit. 2 (H315) (EFFA) Acute Tox. 5 (H313)(EFFA)	
Caryophyllene	Present	87-44-5	0.1 - <1	Skin Sens. 1B (H317) (EFFA) Asp. Tox. 1 (H304) (EFFA) Chronic Aquatic(H413) (EFFA)	No data available
trans-Cadinol	-	5937-11-1	0.1 - <1	Not classified	No data available
Isopulegol	Present	89-79-2	0.1 - <1	Skin Irrit. 2 (H315) (EFFA) Acute Tox. 4 (H302) (EFFA) Flam. Liq. 4 (H227)(EFFA) Eye Irrit. 2 (H319)(EFFA) Aquatic Acute 3 (H402)	No data available
alpha-Murolene	-	10208-80-7	0.1 - <1	Not classified	No data available
Myrcene	Present	123-35-3	0.1 - <1	Eye Irrit. 2 (H319) (EFFA) Skin Irrit. 2 (H315) (EFFA) Asp. Tox. 1 (H304) (EFFA) Flam. Liquid 3 (H226) (EFFA) Acute Aquatic 1 (H400) (EFFA) Chronic Aquatic 2 (H411) (EFFA)	No data available
alpha-Pinene	Present	80-56-8	0.1 - <1	Acute Aquatic 1 (H400) (EFFA) Chronic Aquatic 1 (H410) (EFFA) Acute Tox. 4 (H302) (EFFA) Skin Sens. 1B (H317) (EFFA) Skin Irrit. 2 (H315) (EFFA) Asp. Tox. 1 (H304) (EFFA) Flam. Liq. 3 (H226)(EFFA)	No data available
alpha-Humulene	Present	6753-98-6	0.1 - <1	Not Classified	No data available
Camphene	Present	79-92-5	0.1 - <1	Aquatic Acute 1 (H400) (EFFA) Eye Irrit. 2B (H320) (EFFA) Aquatic Chronic 1 (H410) (EFFA) Flam. Sol 2 (H228) (EFFA)	No data available
alpha-Terpineol	Present	98-55-5	0.1 - <1	Aquatic Acute 2 (H401) (EFFA) Eye Irrit. 2 (H319) (EFFA) Skin Irrit. 2 (H315) (EFFA) Acute Tox. 5 (H303)(EFFA) Flam. Liq. 4 (H227)(EFFA)	No data available
Terpinen-4-ol	Present	562-74-3	0.01 - <0.1	Aquatic Acute 3 (H402) (EFFA) Eye Irrit. 2 (H319) (EFFA) Skin Irrit. 2 (H315) (EFFA) Acute Tox. 4 (H302) (EFFA) Acute Tox. 5 (H313)(EFFA) Flam. Liq. 4 (H227)(EFFA)	No data available
alpha thujene	-	3917-48-4	0.01 - <0.1	Not Classified	No data available
Methyl heptenone	Present	110-93-0	0.01 - <0.1	Aquatic Acute 3 (H402) (EFFA) Acute Tox. 5 (H303)(EFFA) Flam. Liq. 3 (H226)(EFFA)	No data available
alpha-Copaene	Present	3856-25-5	0.01 - <0.1	Not Classified	No data available
beta-Pinene	Present	127-91-3	0.01 - <0.1	Acute Aquatic 1	No data available

				(H400) (ECHA) Chronic Aquatic 1 (H410) (ECHA) Skin Sens. 1 (H317) (ECHA) Skin Irrit. 2 (H315) (ECHA) Asp. Tox. 1 (H304) (ECHA) Flam. Liq. 3 (H226)(ECHA)	
Methyl eugenol	Present	93-15-2	<0.01	Aquatic Acute 2 (H401) (ECHA) Carc. 2 (H351) (ECHA) Muta. 2 (H341) (ECHA) Acute Tox. 4 (H302) (ECHA)	No data available

Full text of H- and EUH-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	If symptoms persist, call a physician.
Inhalation	Aspiration into lungs can produce severe lung damage. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediate medical attention is not required. If symptoms persist, call a physician. Move to fresh air in case of accidental inhalation of vapors or decomposition products.
Skin contact	IF ON SKIN: Wash with plenty of soap and water. If skin irritation persists, call a physician. Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Eye Contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
Ingestion	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.
Self-protection of the first aider	Use personal protective equipment as required.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms	None known.
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4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media

Use CO₂, dry chemical, or foam Use Dry chemical Carbon dioxide (CO₂) Water spray (fog) Alcohol resistant foam

Unsuitable extinguishing media

Do not use a solid water stream as it may scatter and spread fire

5.2. Special hazards arising from the substance or mixture

Combustible material

Hazardous combustion products Irritating or toxic substances may be emitted upon burning, combustion, or decomposition.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****Personal precautions**

Use personal protective equipment as required. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Pay attention to flashback. Take precautionary measures against static discharges.

For emergency responders

Use personal protection recommended in Section 8.

6.2. Environmental precautions

See Section 12 for additional Ecological Information. Do not flush into surface water or sanitary sewer system. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up**Methods for Containment**

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

Methods for cleaning up

Cover liquid spill with sand, earth or other non-combustible absorbent material. Sweep up and shovel into suitable containers for disposal. Soak up with inert absorbent material. Dam up. Pick up and transfer to properly labeled containers. Take precautionary measures against static discharges.

6.4. Reference to other sections

See Section 12: ECOLOGICAL INFORMATION.

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Avoid contact with skin, eyes or clothing. Use with local exhaust ventilation. All equipment used when handling the product must be grounded. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).

General hygiene considerations

When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

7.2. Conditions for safe storage, including any incompatibilities**Storage Conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from sunlight. Keep in properly labeled containers.

7.3. Specific end use(s)**Risk Management Methods (RMM)**

The information required is contained in this Material Safety Data Sheet.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

Chemical Name	European Union	United Kingdom	France	Spain	Germany
d-Limonene 5989-27-5	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	S* TWA: 30 ppm TWA: 168 mg/m ³	TWA: 5 ppm TWA: 28 mg/m ³ Ceiling / Peak: 20 ppm Ceiling / Peak: 112 mg/m ³ Skin
Terpinolene 586-62-9	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	-	-
Myrcene 123-35-3	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	-	-
alpha-Pinene 80-56-8	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	TWA: 20 ppm TWA: 113 mg/m ³	-
Camphene 79-92-5	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	-	-
beta-Pinene 127-91-3	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	TWA: 20 ppm TWA: 113 mg/m ³	-
Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
d-Limonene 5989-27-5	-	-	-	TWA: 25 ppm TWA: 140 mg/m ³ STEL: 50 ppm STEL: 280 mg/m ³	-
alpha-Pinene 80-56-8	-	TWA: 20 ppm	-	-	-
beta-Pinene 127-91-3	-	TWA: 20 ppm	-	-	-
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
d-Limonene 5989-27-5	-	STEL: 14 ppm STEL: 80 mg/m ³ TWA: 7 ppm TWA: 40 mg/m ³	-	TWA: 25 ppm TWA: 140 mg/m ³ STEL: 37.5 ppm STEL: 175 mg/m ³	-
Myrcene 123-35-3	-	-	-	TWA: 40 ppm TWA: 275 mg/m ³ STEL: 60 ppm STEL: 343.75 mg/m ³	-
alpha-Pinene 80-56-8	-	Skin STEL: 40 ppm STEL: 224 mg/m ³ TWA: 20 ppm TWA: 112 mg/m ³	-	TWA: 25 ppm TWA: 140 mg/m ³ Skin STEL: 37.5 ppm STEL: 175 mg/m ³	-
Camphene 79-92-5	-	Skin STEL: 40 ppm STEL: 224 mg/m ³ TWA: 20 ppm TWA: 112 mg/m ³	-	-	-
beta-Pinene 127-91-3	-	Skin STEL: 40 ppm STEL: 224 mg/m ³ TWA: 20 ppm TWA: 112 mg/m ³	-	TWA: 25 ppm TWA: 140 mg/m ³ STEL: 37.5 ppm STEL: 175 mg/m ³	-

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available

8.2. Exposure controls

Engineering controls Showers
 Eyewash stations
 Ventilation systems
 Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

Eye/Face Protection Avoid contact with eyes. Wear safety glasses with side shields (or goggles). Tight sealing safety goggles.

Hand protection Wear protective nitrile rubber gloves.

Skin and Body Protection Suitable protective clothing. Wear chemical resistant clothing such as gloves, apron, boots or whole bodysuits made from neoprene, as appropriate. Antistatic footwear. Gloves made of plastic or rubber.

Respiratory protection Ensure adequate ventilation, especially in confined areas. No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Environmental exposure controls Prevent product from entering drains.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state	Liquid		
Appearance	Clear	Odor	Characteristic Odor
Color	Pale Yellow to Dark Yellow	Odor threshold	Not applicable

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH		
Melting point / freezing point		
Boiling point / boiling range		
Flash Point	75 °C / 167 °F	CC (closed cup)
Evaporation Rate		
Flammability (solid, gas)		
Flammability Limit in Air		
Upper flammability limit:		
Lower flammability limit:		
Vapor pressure		
Vapor Density		
Specific gravity	0.877 - 0.890	(25°C)
Water solubility		
solubility(ies)		
Partition coefficient		
Autoignition Temperature		
Decomposition temperature		
Kinematic viscosity		
Dynamic viscosity		
Explosive properties	Not an explosive	
Oxidizing properties	Not oxidising	

9.2. Other information

Molecular weight	Not applicable
VOC content (%)	4.7406
Density	Not applicable
Bulk Density	Not applicable

SECTION 10: Stability and reactivity**10.1. Reactivity****10.2. Chemical stability**

Stable under recommended storage conditions.

Explosion data

Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

10.3. Possibility of hazardous reactions

Possibility of Hazardous Reactions

None under normal processing.

10.4. Conditions to avoid

Extremes of temperature and direct sunlight. Heat, flames and sparks.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

None under normal use conditions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Product Information

Inhalation	Avoid breathing vapors or mists.
Eye Contact	Avoid contact with eyes. Causes serious eye damage.
Skin contact	Avoid contact with skin. Causes skin irritation. May cause an allergic skin reaction.
Ingestion	May be fatal if swallowed and enters airways.

The following values are calculated based on chapter 3.1 of the GHS document mg/kg

22.046 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
46.6315 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Citronellal	= 2420 mg/kg (Rat)	> 2.5 g/kg (Rabbit) > 2500 mg/kg (Rabbit)	
Geraniol	= 3600 mg/kg (Rat)	> 5 g/kg (Rabbit)	
Citronellol	= 3450 mg/kg (Rat)	= 2650 mg/kg (Rabbit)	
d-Limonene	6 Rat > 2000 mg/kg Female 1 (reliable without restriction) 7 Rat > 5000 mg/kg Male 4 (not assignable) 8 Rat > 5000 mg/kg 4 (not assignable) 1 Mouse 5600 mg/kg Male 4 (not assignable) 5 Rat 5300 mg/kg Male 4 (not assignable) 2 Mouse 6600 mg/kg Female 4 (not assignable) 3 Rat 4400 mg/kg Male 4 (not assignable)	> 5 g/kg (Rabbit)	

	4 Rat 5200 mg/kg Female 4 (not assignable)		
Geranyl acetate	= 6330 mg/kg (Rat)		
Citronellyl acetate	= 6800 mg/kg (Rat)		
Terpinolene	= 4390 mg/kg (Rat)		
Linalool	= 2790 mg/kg (Rat)	= 2000 mg/kg (Rabbit) = 5610 mg/kg (Rat)	
Geranial	= 500 mg/kg (Rat)		
Myrcene	> 5 g/kg (Rat)	> 5 g/kg (Rabbit)	
alpha-Pinene	= 3700 mg/kg (Rat)	> 5000 mg/kg (Rat)	
Camphene	> 5 g/kg (Rat)	> 2500 mg/kg (Rabbit)	= 17100 mg/m ³ (Rat) 1 h
Terpinen-4-ol	= 1300 mg/kg (Rat)	> 2500 mg/kg (Rabbit) > 3 g/kg (Rabbit)	
Methyl heptenone	= 3500 mg/kg (Rat)	> 2 g/kg (Rat) > 5 g/kg (Rabbit)	
beta-Pinene	= 4700 mg/kg (Rat) > 5000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	
Methyl eugenol	= 810 mg/kg (Rat)	> 2025 mg/kg (Rabbit)	

Skin corrosion/irritation	Irritating to skin.
Serious eye damage/eye irritation	Risk of serious damage to eyes.
Sensitization	May cause sensitization by skin contact.
Germ cell mutagenicity	Not classified.
Carcinogenicity	None known.
Reproductive toxicity	This product does not contain any known or suspected reproductive hazards above the threshold value.
STOT - single exposure	Not classified.
STOT - repeated exposure	Not classified.
Aspiration hazard	May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1. Toxicity

Toxic to aquatic life with long lasting effects

14.1585 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Crustacea	Algae/aquatic plants	Fish
d-Limonene	48hr EC50 - 0.4 mg/L (Daphnia magna)	96 hr NOEC - 4mg/L (Green algae)	96hr LC50 - 0.7mg/L (Pimephales promelas)
Linalool	20: 48 h Daphnia magna mg/L EC50		22 - 46: 96 h Leuciscus idus mg/L LC50 static
alpha-Pinene	41: 48 h Daphnia magna mg/L LC50		0.28: 96 h Pimephales promelas mg/L LC50 static
Camphene	22: 48 h Daphnia magna mg/L EC50		0.72: 96 h Brachydanio rerio mg/L LC50 flow-through 150: 96 h Brachydanio rerio mg/L LC50 static
alpha-Terpineol	48hr EC50 - 73 mg/l (Daphnia)	72hr EC50 - 68mg/l	96hr LC50 - 62 to 80 mg/L
Methyl heptenone	129: 48 h Daphnia magna mg/L EC50		83.3 - 88.2: 96 h Pimephales promelas mg/L LC50 flow-through

12.2. Persistence and degradability

Readily biodegradable.

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil**Mobility in soil**

No information available

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

No information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods**Waste from Residues/Unused Products**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Do not reuse container. Improper disposal or reuse of this container may be dangerous and illegal.

SECTION 14: Transport information

IMDG

14.1 UN/ID no	3082
14.2 Proper Shipping Name	Environmentally Hazardous Substance, liquid n.o.s.
14.3 Hazard Class	9
14.4 Packing group	III
Description	(Limonene)
14.5 Marine pollutant	This material meets the definition of a marine pollutant
Environmental hazard	Yes
14.6 Special Provisions	274, 335, 969
EmS-No	F-A, S-F
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	IBC02

RID

14.1 UN/ID no	3082
14.2 Proper Shipping Name	Environmentally Hazardous Substance, liquid n.o.s.
14.3 Hazard Class	9
14.4 Packing group	III
Description	(Limonene)
14.5 Environmental hazard	Yes
14.6 Special Provisions	None

ADR

14.1 UN/ID no	3082
14.2 Proper Shipping Name	Environmentally Hazardous Substance, liquid n.o.s.
14.3 Hazard Class	9
Labels	9, Marine Pollutant
14.4 Packing group	III

Description (Limonene)
14.5 Environmental hazard Yes
14.6 Special Provisions 274, 335, 375, 601
Classification code M6

ICAO (air)

14.1 UN/ID no 3082
14.2 Proper Shipping Name Environmentally Hazardous Substance, liquid n.o.s.
14.3 Hazard Class 9
14.4 Packing group III
Description (Limonene)
14.5 Environmental hazard Yes
14.6 Special Provisions None

IATA

14.1 UN/ID no 3082
14.2 Proper Shipping Name Environmentally Hazardous Substance, liquid n.o.s.
14.3 Hazard Class 9
14.4 Packing group III
Description (Limonene)
14.5 Environmental hazard Yes
14.6 Special Provisions A97, A158, A197
ERG Code 9L

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Chemical Name	French RG number	Title
d-Limonene 5989-27-5	RG 84	-

Water hazard class (WGK) Hazardous to water (WGK 2)

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorization and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

15.2. Chemical safety assessment

No information available

SECTION 16: Other information

Full text of H-Statements referred to under section 3

H226 - Flammable liquid and vapor
H227 - Combustible liquid
H228 - Flammable solid
H303 - May be harmful if swallowed
H304 - May be fatal if swallowed and enters airways

H313 - May be harmful in contact with skin
H315 - Causes skin irritation
H316 - Causes mild skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H320 - Causes eye irritation
H400 - Very toxic to aquatic life
H401 - Toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H411 - Toxic to aquatic life with long lasting effects
H412 - Harmful to aquatic life with long lasting effects

Issue date 26-Mar-2015
Revision date 19-Nov-2019
Revision note Not applicable.

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

This material has not been tested or proven safe for inhalation. With this document, Phoenix LLC only attests to the safety of the product when used in the appropriate and suitable fragrance/flavor industry application.

Classification and labeling according to the IFRA/IOFI Labeling Manual 2018. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet