

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)



Trade name : 0599095 Lemon Oil Italian
Revision date : 15.03.2024
Print date : 16.05.2025

Version (Revision) : 14.1.0 (14.0.0)

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

1.1 Product identifier

0599095 Lemon Oil Italian

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

Remark

The product is intended for professional use.

1.3 Details of the supplier of the safety data sheet

Supplier

Bell Flavors & Fragrances GmbH

Street : Schimmelstr. 1

Postal code/City : D - 04205 Leipzig

Telephone : +49 (0)341.9451.0

Telefax : +49 (0)341.94511.669

Information contact : msds@bell-europe.com

1.4 Emergency telephone number

Chemtrec Region EMEA +44 20 3885 0382

Chemtrec Region Germany 0800 1817059

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

Flam. Liq. 3 ; H226 - Flammable liquids : Category 3 ; Flammable liquid and vapour.

Skin Irrit. 2 ; H315 - Skin corrosion/irritation : Category 2 ; Causes skin irritation.

Skin Sens. 1 ; H317 - Skin sensitisation : Category 1 ; May cause an allergic skin reaction.

Repr. 2 ; H361 - Reproductive toxicity : Category 2 ; Suspected of damaging fertility or the unborn child.

Asp. Tox. 1 ; H304 - Aspiration hazard : Category 1 ; May be fatal if swallowed and enters airways.

Aquatic Acute 1 ; H400 - Hazardous to the aquatic environment : Acute 1 ; Very toxic to aquatic life.

Aquatic Chronic 2 ; H411 - Hazardous to the aquatic environment : Chronic 2 ; Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms



Flame (GHS02) · Health hazard (GHS08) · Environment (GHS09) · Exclamation mark (GHS07)

Signal word

Danger

Hazard components for labelling

d-Limonene ; CAS No. : 5989-27-5

beta PINENE ; CAS No. : 127-91-3

gamma-TERPINENE ; CAS No. : 99-85-4

CITRAL ; CAS No. : 5392-40-5

alpha PINENE ; CAS No. : 80-56-8

TERPINOLENE ; CAS No. : 586-62-9

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LINALOOL ; CAS No. : 78-70-6
beta CARYOPHYLLENE ; CAS No. : 87-44-5
GERANIOL ; CAS No. : 106-24-1
TERPINEN ALPHA ; CAS No. : 99-86-5

Hazard statements

H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H361 Suspected of damaging fertility or the unborn child.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

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.
P233 Keep container tightly closed.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/....
P308+P313 IF exposed or concerned: Get medical advice/attention.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

2.3 Other hazards

Adverse human health effects and symptoms

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Adverse environmental effects

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Extract of different plants, liquid

Description

CITRUS LIMON PEEL OIL

CAS-No.: 84929-31-7; EINECS-No.: 284-515-8

Hazardous ingredients

d-Limonene ; REACH No. : 01-2119529223-47-XXXX ; EC No. : 227-813-5; CAS No. : 5989-27-5

Weight fraction : ≥ 50 %
Classification 1272/2008 [CLP] : Flam. Liq. 3 ; H226 Asp. Tox. 1 ; H304 Skin Irrit. 2 ; H315 Skin Sens. 1B ; H317 Aquatic Acute 1 ; H400 Aquatic Chronic 3 ; H412
Specific Conc. Limits : (M Acute=1)

beta PINENE ; REACH No. : 01-2119519230-54-XXXX ; EC No. : 204-872-5; CAS No. : 127-91-3

Weight fraction : ≥ 10 - < 25 %
Classification 1272/2008 [CLP] : Flam. Liq. 3 ; H226 Asp. Tox. 1 ; H304 Skin Irrit. 2 ; H315 Skin Sens. 1B ; H317 Aquatic Acute 1 ; H400 Aquatic Chronic 1 ; H410

gamma-TERPINENE ; EC No. : 202-794-6; CAS No. : 99-85-4

Weight fraction : ≥ 1 - < 10 %
Classification 1272/2008 [CLP] : Flam. Liq. 3 ; H226 Asp. Tox. 1 ; H304 Repr. 2 ; H361 Aquatic Chronic 2 ; H411

CITRAL ; REACH No. : 01-2119462829-23-XXXX ; EC No. : 226-394-6; CAS No. : 5392-40-5

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Weight fraction : $\geq 1 - < 10 \%$
Classification 1272/2008 [CLP] : Skin Irrit. 2 ; H315 Skin Sens. 1B ; H317 Eye Irrit. 2 ; H319
alpha PINENE ; REACH No. : 01-2119519223-49-XXXX ; EC No. : 201-291-9 ; CAS No. : 80-56-8
Weight fraction : $\geq 1 - < 10 \%$
Classification 1272/2008 [CLP] : Flam. Liq. 3 ; H226 Asp. Tox. 1 ; H304 Acute Tox. 4 ; H302 Skin Irrit. 2 ; H315 Skin Sens. 1B ; H317 Aquatic Acute 1 ; H400 Aquatic Chronic 1 ; H410
Specific Conc. Limits : (M=1)
7-METHYL-3-METHYLDIENEOCTA-1,6-DIENE ; REACH No. : 01-2119514321-56-XXXX ; EC No. : 204-622-5 ; CAS No. : 123-35-3
Weight fraction : $\geq 1 - < 10 \%$
Classification 1272/2008 [CLP] : Flam. Liq. 3 ; H226 Asp. Tox. 1 ; H304 Skin Irrit. 2 ; H315 Eye Irrit. 2 ; H319 Aquatic Acute 1 ; H400 Aquatic Chronic 2 ; H411
LINALOOL ; REACH No. : 01-2119474016-42-XXXX ; EC No. : 201-134-4 ; CAS No. : 78-70-6
Weight fraction : $\geq 0,1 - < 1 \%$
Classification 1272/2008 [CLP] : Skin Irrit. 2 ; H315 Skin Sens. 1B ; H317 Eye Irrit. 2 ; H319
TERPINOLENE ; REACH No. : 01-2119982325-32-XXXX ; EC No. : 209-578-0 ; CAS No. : 586-62-9
Weight fraction : $\geq 0,1 - < 1 \%$
Classification 1272/2008 [CLP] : Asp. Tox. 1 ; H304 Skin Sens. 1B ; H317 Aquatic Acute 1 ; H400 Aquatic Chronic 1 ; H410
Specific Conc. Limits : (M=1)
beta CARYOPHYLLENE ; REACH No. : 01-2120745237-53-XXXX ; EC No. : 201-746-1 ; CAS No. : 87-44-5
Weight fraction : $\geq 0,1 - < 1 \%$
Classification 1272/2008 [CLP] : Asp. Tox. 1 ; H304 Skin Sens. 1B ; H317
GERANIOL ; REACH No. : 01-2119552430-49-XXXX ; EC No. : 203-377-1 ; CAS No. : 106-24-1
Weight fraction : $\geq 0,1 - < 1 \%$
Classification 1272/2008 [CLP] : Eye Dam. 1 ; H318 Skin Irrit. 2 ; H315 Skin Sens. 1 ; H317
TERPINEN ALPHA ; REACH No. : 01-2120766853-42-XXXX ; EC No. : 202-795-1 ; CAS No. : 99-86-5
Weight fraction : $\geq 0,1 - < 1 \%$
Classification 1272/2008 [CLP] : Flam. Liq. 3 ; H226 Asp. Tox. 1 ; H304 Acute Tox. 4 ; H302 Skin Sens. 1 ; H317 Aquatic Chronic 2 ; H411
Specific Conc. Limits : (ATE - oral : 680 mg/kg)

Additional information

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

Remove victim out of the danger area. Change contaminated, saturated clothing. When in doubt or if symptoms are observed, get medical advice.

General information

Observe risk of aspiration if vomiting occurs.

Following inhalation

Remove casualty to fresh air and keep warm and at rest. In case of respiratory tract irritation, consult a physician.

In case of skin contact

After contact with skin, wash immediately with plenty of water and soap. In case of skin reactions, consult a physician.

After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Following ingestion

Do NOT induce vomiting. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do NOT induce vomiting.

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Self-protection of the first aider

First aider: Pay attention to self-protection!

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

None

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Sand Foam Carbon dioxide (CO₂) Dry extinguishing powder

Unsuitable extinguishing media

Full water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Nitrogen oxides (NO_x) Sulphur oxides

5.3 Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

5.4 Additional information

Do not inhale explosion and combustion gases. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protection equipment. Remove all sources of ignition. Provide adequate ventilation.

6.2 Environmental precautions

Do not allow to enter into surface water or drains. Retain contaminated washing water and dispose it. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

6.4 Reference to other sections

None

SECTION 7: Handling and storage

7.1 Precautions for safe handling

All work processes must always be designed so that the following is excluded: Inhalation of vapours or spray/mists Skin contact Eye contact If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

Protective measures

Measures to prevent fire

Keep away from sources of ignition - No smoking.

Advices on general occupational hygiene

When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work.

7.2 Conditions for safe storage, including any incompatibilities

Floors should be impervious, resistant to liquids and easy to clean. Provide for retaining containers, e.g. floor pan without outflow. Keep/Store only in original container. Keep container tightly closed. Ensure adequate ventilation of the

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storage area.

Further information on storage conditions

Protect against : Heat. UV-radiation/sunlight

7.3 Specific end use(s)

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

None

8.2 Exposure controls

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

Personal protection equipment



Eye / face protection

Eye glasses with side protection

Skin protection

Hand protection

Disposable gloves.

Suitable material : Butyl caoutchouc (butyl rubber)

Respiratory protection

Usually no personal respirative protection necessary.

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Colour : yellow

Odour

characteristic

Safety characteristics

Physical state :

Liquid

Melting point/freezing point :

not applicable

Freezing point :

not applicable

Initial boiling point and boiling range :

(1013 hPa)

>

35 °C

Flash point :

=

48 °C

DIN ISO 2719

Auto-ignition temperature :

No data available

Lower explosion limit :

not determined

Upper explosion limit :

not determined

Vapour pressure :

(50 °C)

<

1000 hPa

Density :

(20 °C)

0,848 - 0,862 g/cm³

Solvent separation test :

(20 °C)

<

3 %

pH :

not determined

log P O / W :

not applicable

Flow time :

(20 °C)

<

12 s

DIN-cup 4 mm

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Relative vapour density : (20 °C) not determined

9.2 Other information

None

SECTION 10: Stability and reactivity

Stable under recommended storage and handling conditions(See section 7).

10.1 Reactivity

No information available.

10.2 Chemical stability

Decomposition takes place from temperatures above: 230 °C

10.3 Possibility of hazardous reactions

No information available.

10.4 Conditions to avoid

In case of exceeding the storage temperature: Danger of bursting container.

10.5 Incompatible materials

Oxidizing agent.

10.6 Hazardous decomposition products

May cause decomposition by long-term light influence.

10.7 Additional information

Sensitivity to light (photosensitive).

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Based on available data, the classification criteria are not met.

Acute oral toxicity

Parameter : LD50 (GERANIOL ; CAS No. : 106-24-1)
Exposure route : Oral
Effective dose : = 3600 mg/kg

Acute dermal toxicity

Parameter : LD50 (CITRAL ; CAS No. : 5392-40-5)
Exposure route : Dermal
Effective dose : = 2250 mg/kg

Corrosion

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

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STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

May be fatal if swallowed and enters airways.

11.2 Information on other hazards

No information available.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Acute (short-term) fish toxicity

Parameter :	Acute (short-term) fish toxicity (d-Limonene ; CAS No. : 5989-27-5)
Species :	Pimephales promelas (fathead minnow)
Effective dose :	720 µg/l
Exposure time :	96 hour(s)

Chronic (long-term) fish toxicity

Parameter :	EC10 (d-Limonene ; CAS No. : 5989-27-5)
Species :	Pimephales promelas (fathead minnow)
Evaluation parameter :	Chronic (long-term) fish toxicity
Effective dose :	0,37 mg/l
Exposure time :	8 day(s)

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Can be incinerated together with household waste in compliance with applicable technical regulations following consultation with approved waste disposal management companies and authorities in charge.

SECTION 14: Transport information

14.1 UN number or ID number

UN 1197

14.2 UN proper shipping name

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Land transport (ADR/RID)

EXTRACTS, LIQUID

Sea transport (IMDG)

EXTRACTS, LIQUID (DIPENTENE · beta PINENE · gamma-TERPINENE · alpha PINENE)

Air transport (ICAO-TI / IATA-DGR)

EXTRACTS, LIQUID

14.3 Transport hazard class(es)

Land transport (ADR/RID)

Class(es) : 3
Classification code : F1
Hazard identification number (Kemler No.) : 30
Tunnel restriction code : D/E
Special Provisions : LQ 5 I · E 1
Hazard label(s) : 3 / N

Sea transport (IMDG)

Segregation group : not applicable

Class(es) : 3
EmS-No. : F-E / S-D
Special Provisions : LQ 5 I · E 1
Hazard label(s) : 3 / N

Air transport (ICAO-TI / IATA-DGR)

Class(es) : 3
Special Provisions : E 1
Hazard label(s) : 3

14.4 Packing group

III

14.5 Environmental hazards

Land transport (ADR/RID) : Yes
Sea transport (IMDG) : Yes (P)
Air transport (ICAO-TI / IATA-DGR) : Yes

14.6 Special precautions for user

None

14.7 Maritime transport in bulk according to IMO instruments

not relevant

SECTION 15: Regulatory information

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

EU legislation

Authorisations and/or restrictions on use

Restrictions on use

Regulation (EC) No. 1907/2006 (REACH), Annex XVII (restrictions)

Use restriction according to REACH annex XVII, no. : 3

15.2 Chemical Safety Assessment

No information available.

SECTION 16: Other information

16.1 Indication of changes

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02. Label elements · 11. Acute toxicity · 11. Serious eye damage/eye irritation · 11. Carcinogenicity · 11. Germ cell mutagenicity · 11. Reproductive toxicity · 11. STOT-single exposure · 11. STOT-repeated exposure · 12. Aquatic toxicity

16.2 Abbreviations and acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute toxicity estimate
AwSV	Regulation on Installations for Handling Substances Hazardous to Water
CAS	Chemical Abstracts Service
CLP	Regulation on classification, labelling and packaging of substances, Regulation (EC) No 1272/2008
DGR	Dangerous Goods Regulations
DIN	Standard of the German Institute for Standardisation
DNEL	Derived exposure level below which the substance does not lead to any impairment of human health
GHS	Globally harmonised system for the classification and labelling of chemicals
IATA	International Air Transport Association
ICAO-TI	International Civil Aviation Organization-Technical Instructions
IMDG	International Maritime Dangerous Goods
ISO	International Organisation for Standardisation
LC50	Lethal concentration for 50 % of a test population
LD50	Lethal dose for 50 % of a test population
NO(A)EL	Dose at which no (harmful) effect is detectable
n.o.s.	not otherwise specified
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, bioaccumulative and toxic substances
STEL	short-term exposure limit
SVHC	Substance of very high concern
TRGS	Technical rules for hazardous substances
TWA	Time-weighted average
vPvB	Very persistent and very bioaccumulative
WGK	Wassergefährdungsklasse (Water hazard class)

16.3 Key literature references and sources for data

None

16.4 Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Calculated according to the formula provided in Regulation (EC) No. 1272/2008 [CLP] Annex I, Section 2.15.2.1.

16.5 Relevant H- and EUH-phrases (Number and full text)

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
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.
H319	Causes serious eye irritation.
H361	Suspected of damaging fertility or the unborn child.
H400	Very 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.

16.6 Training advice

None

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16.7 Additional information

None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. This document is not intended for quality assurance purposes.