

**SAFETY DATA SHEET**

according to regulation (EC) 1907/2006

according to regulation (EU) 453/2010

**3160 Lemon yellow organic****1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY****1.1 Product identifier**

Trade Name: Lemon yellow organic  
 Botanical Name: Citrus limonum  
 INCI: Citrus limon Peel Oil  
 CAS TSCA-No: 8008-56-8  
 CAS EINECS-No.: 84929-31-7  
 EINECS-No.: 284-515-8  
 FEMA-No.: 2625

**1.2 Relevant identified uses of the substance and uses advised against**

Substance use: Perfumery and/or aromatic uses

**1.3 Details of the supplier of the safety data sheet**

Supplier name: AYUS GmbH  
 Address: Am Dreschschopf 1, 77815 Bühl, Deutschland  
 Phone: +49 7227 600 99-0  
 Fax: +49 7227 600 99-99  
 E-mail: [info@oshadhi.eu](mailto:info@oshadhi.eu)

**1.4 Emergency telephone number**

Poison emergency number: +49 89-19240

**2. HAZARDS IDENTIFICATION****2.1 Classification of the substance according to regulation (EG) 1272/2008 (CLP)**

Hazard class and Hazard category	Code	Hazard statement
Flammable liquids, category 3	H226	Flammable liquid and vapour.
Aspiration hazard, category 1	H304	May be fatal if swallowed and enters airways.
Skin corrosion/irritation, category 2	H315	Causes skin irritation.
Respiratory/skin sensitisation, skin sensitisation category 1	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, acute category 1	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment, chronic category 1	H410	Very toxic to aquatic life with long lasting effects.

**2.2 Label elements**

Hazard pictogram and signal word



**DANGER:**

**H-Statements:**

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

**P-Statements:****Prevention:**

P102	Keep out of reach of children.
P103	Read label before use.
P210	Keep away from heat /sparks /open flames/hot surfaces. – No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical /ventilating /lighting /.../equipment.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust /fume /gas /mist /vapours /spray.
P262	Do not get in eyes, on skin, or on clothing.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves /eye protection.

**Response:**

P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor /physician.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321	Specific treatment (see on this label).
P331	Do NOT induce vomiting.
P333+P313	If skin irritation or rash occurs: Get medical advice /attention.
P337+P313	If eye irritation persists: Get medical advice /attention.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use CO2 for extinction.
P391	Collect spillage.

**Storage:**

P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

**Disposal:**

P501	Dispose of contents /container to special waste.
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**2.3 Other Hazards**

Allergens (according to regulation (EC) No 1223/2009 on cosmetic products)

Geraniol	< 0,1 %
Linalool	< 0,2 %
Citral	< 3,0 %
Limonene	< 70,0 %

(-) = no data available

(+) = not detected

**3. COMPOSITION / INFORMATION ON INGREDIENTS****3.1 Substances**

**Chemical Identification:** Citrus limonum oil (100% natural essential oil)

**Hazardous constituent: according to EG-Regulation 1272/2008 (CLP)**

<b>Ingredient</b>	<b>Concentration</b>	<b>Registration-N.</b>	<b>CLP-Classification</b>
alpha-Phellandrene	< 0,1 %	CAS-No: 99-83-2 EINECS-No: 202-792-5	Flam. Liq. 3, H226 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 STOT SE 3, H335
alpha-Pinene	< 3,0 %	CAS-No: 80-56-8 EINECS-No: 201-291-9	Flam. Liq. 3, H226 Asp. Tox. 1, H304 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411
alpha-Terpinene	< 0,5 %	CAS-No: 99-86-5 EINECS-No: 202-795-1	Flam. Liq. 3, H226 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Chronic 2, H411
alpha-Terpineol	< 3,0 %	CAS-No: 98-55-5 EINECS-No: 202-680-6	Skin Irrit. 2, H315 Eye Irrit. 2, H319
alpha-Thuyene	< 0,5 %	CAS-No: 2867-05-2 EINECS-No: 220-686-7	No records, -
beta-Ocimene	< 0,5 %	CAS-No: 13877-91-3 EINECS-No: 237-641-2	Flam. Liq. 3, H226
beta-Pinene	< 14,0 %	CAS-No: 127-91-3 EINECS-No: 204-872-5	Flam. Liq. 3, H226 Asp. Tox. 1, H304 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1, H400
Camphene	< 0,5 % < 0,1 %	CAS-No: 79-92-5 EINECS-No: 201-234-8	Flam. Sol. 1, H228 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Citral (Neral + Geranial)	< 3,0 %	CAS-No: 5392-40-5 EINECS-No: 226-394-6	Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319
gamma-Terpinene	< 12,0 %	CAS-No: 99-85-4 EINECS-No: 202-794-6	Flam. Liq. 3, H226 Asp. Tox. 1, H304
Geranyl acetate	< 0,8 %	CAS-No: 105-87-3 EINECS-No: 203-341-5	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 3, H412
Limonene	< 70,0 %	CAS-No: 5989-27-5 EINECS-No: 227-813-5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Linalool	< 0,2 %	CAS-No: 78-70-6 EINECS-No: 201-134-4	Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319
Myrcene	< 3,0 %	CAS-No: 123-35-3 EINECS-No: 204-622-5	Flam. Liq. 3, H226 Asp. Tox. 1, H304 Skin Irrit. 2, H315 Eye Irrit. 2, H319
Neryl acetate	< 0,5 %	CAS-No: 141-12-8 EINECS-No: 205-459-2	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 3, H412
Nonanal	< 0,5 %	CAS-No: 124-19-6 EINECS-No: 204-688-5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 3, H412

Octanal	< 0,1 %	CAS-No: 124-13-0 EINECS-No: 204-683-8	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 2, H411
p-Cymene	< 0,5 %	CAS-No: 99-87-6 EINECS-No: 202-796-7	Flam. Liq. 3, H226 Acute Tox. 4, H302 Asp. Tox. 1, H304 Skin Irrit. 2, H315 Aquatic Chronic 2, H411
Sabinene	< 4,0 %	CAS-No: 3387-41-5 EINECS-No: 222-212-4	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Terpinolene	< 0,5 %	CAS-No: 586-62-9 EINECS-No: 209-578-0	Asp. Tox. 1, H304 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

<b>Excessive inhalation:</b>	Remove to fresh air environment – summon a physician immediately.
<b>Skin contact:</b>	Wash contaminated skin with copious amounts of water and soap. Remove contaminated clothes and wash them before reuse. Summon a physician, if an irritation appears.
<b>Eye contact:</b>	Wash contaminated skin with copious amounts of water for at least 10 minutes – open eyelids forcibly. Summon a physician immediately.
<b>Ingestion:</b>	Dilute with water. Do not induce vomiting. Contact physician.

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

No further details.

### 4.3 Indication of any immediate medical attention and special treatment needed

Contact a poison specialist immediately if large quantities have been ingested or inhaled.

## 5. FIREFIGHTING MEASURES

### 5.1 Extinguishing media

**Advised extinguisher:** Use CO<sub>2</sub>, dry powder, fire extinguisher or foam.

**Unadvisable extinguisher:** Direct jet of water.

### 5.2 Special hazards arising from the substance or mixture

Avoid breathing vapours and smokes produced by fire.

Burning will cause strong smoke and soot.

Vapors may form explosive mixtures with air.

Containers may explode with the heat of fire.

### 5.3 Advice for firefighters

Do not attempt to fight the fire with water, which tends to feed rather than smother the flames. Essential oils have the ability to float on water and this causes the fire to propagate more quickly.

Small fires can be smothered by covering with earth, sand or a blanket.

## 6. ACCIDENTAL RELEASE MEASURES

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

Avoid skin, eye and clothes contact. There is a risk of sliding caused by the leaked product. Ventilate well spilling area. Keep away from sources of ignition.

### 6.2 Environmental precautions

Avoid dispose into drainage, sewer system or in any natural environment. Dispose binding material, cloths and sponges according to the national law.

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

Use of absorbent material (e.g. sand, diatomaceous earth).

### 6.4 Reference to other sections

Please see section 8 and 13.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Ventilate the storage and preparation warehouse/laboratory. Avoid eating, drinking and smoking in the places where products are stored and treated. Manipulate with caution to avoid any projection particularly in eyes and on mucous membranes. Do not expose vapors to the flame or quite other source of ignition. Do not inhale warm vapors.

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

It is recommended to keep the product in a water-tight and air-tight container. Keep away from heat and sunlight. Store in a cool and good ventilated area.

### 7.3 Specific end uses

No specific.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1. Control parameters

Please pay attention to the usual precautionary measures with the contact of essential oils. Use good hygiene practice: Please wash before contact, before eating and at the end of the working day.

### 8.2 Exposure controls

**Personal protective equipment:**

**Breathing protection:**

Use in well aired areas.

**Eye protection:**

Safety glasses.

**Hand protection:**

Protecting gloves.

**Skin protection:**

Avoid skin contact. Protective suit should be worn.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Color:	light yellow to greenish
Appearance:	oily liquid
Odor:	fresh, like lemon
pH-value:	no data available
Flash point:	49°C
Water solubility:	Insoluble
Steam pressure:	Unavailable
Initial boiling point and boiling range:	Unavailable
Relative density at 20 °C:	0,84 - 0,87
Refractive index at 20°C:	1,47 - 1,478
Optical rotation at 20°C:	+59° to +65°

### 9.2 Other information:

Main components: Citrus limon Peel Oil, Citral, Geraniol, Limonene, Linalool

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

This product is stable under normal usage conditions.

### 10.2. Chemical stability

This product is stable under normal usage conditions.

### 10.3 Possibility of hazardous reactions

None according to our knowledge.

### 10.4 Conditions to avoid

Do not expose to high temperature or ignition.

### 10.5 Incompatible materials

Avoid flammable materials, PVC.

### 10.6 Hazardous decompositions products

Nothing in proper storage conditions.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Toxicological specifications of the important substances:

Chemical description	Oral LD50	Dermal LD50	Inhalation LC50
alpha-Phellandrene	/	/	/
alpha-Pinene	3.700 mg/kg (rat)	> 5.000 mg/kg (rabbit)	/
alpha-Terpinene	1.680 mg/kg (rat)	/	/
alpha-Terpineol	5.170 mg/kg (rat)	/	/
alpha-Thuyene	/	/	/
beta-Ocimene	/	/	/
beta-Pinene	4.700 mg/kg (rat)	/	/
Camphene	5.000 mg/kg (rat)	> 2.500 mg/kg (rabbit)	/
Citral (Neral + Geranial)	4.960 mg/kg (rat)	2.250 mg/kg (rabbit)	/
gamma-Terpinene	3.650 mg/kg (rat)	/	/
Geranyl acetate	6.330 mg/kg (rat)	/	/
Limonene	4.400 mg/kg (rat)	> 5.000 mg/kg (rabbit)	/
Linalool	2.790 mg/kg (rat)	5.610 mg/kg (rabbit)	/
Myrcene	> 11.390 mg/kg (rat)	> 5.000 mg/kg (rabbit)	/
Neryl acetate	> 5.000 mg/kg	> 5.000 mg/kg	/
Nonanal	> 5.000 mg/kg (rat)	/	/
Octanal	/	/	/
p-Cymene	1.400 mg/kg (rat)	> 5.000 mg/kg	/
Sabinene	/	/	/
Terpinolene	4.390 mg/kg (rat)	/	/

#### Skin corrosion/irritation:

H315 Causes skin irritation.

#### Serious eye damage/irritation:

No significant effects or critical hazards.

#### Respiratory or skin sensitization:

H317 May cause an allergic skin reaction.

#### Aspiration hazard:

H304 May be fatal if swallowed and enters airways.

#### Germ cell mutagenicity:

No significant effects or critical hazards.

#### Carcinogenicity:

No significant effects or critical hazards.

#### Reproductive toxicity:

No significant effects or critical hazards.

#### STOT-single exposure

Unavailable data.

#### STOT-repeated exposure

Unavailable data.

#### **Information on likely routes of exposure**

Unavailable data.

#### **Symptoms related to the physical, chemical and toxicological characteristics**

Unavailable data.

#### **Delayed and immediate effects as well as chronic effects from short and long-term exposure**

Unavailable data.

## **12. ECOLOGICAL INFORMATION**

### **12.1 Toxicity**

Use product only referred of good laboratory practice (GLP) to insure that it is not released into the environment.  
According to regulation 1272/2008:

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

#### **Daphnies toxicity (EC50):**

No further relevant information available.

### **12.2 Persistence and degradability**

No further relevant information available.

### **12.3 Bioaccumulative potential**

#### **Bioconcentration factor (BCF):**

No further relevant information available.

#### **Partition coefficient n-octanol / water (log KO/W)**

No further relevant information available.

### **12.4 Mobility in soil**

No further relevant information available.

### **12.5 Results of PBT and vPvB assessment**

No further relevant information available.

### **12.6 Other adverse effects**

No further relevant information available.

## **13. DISPOSAL CONSIDERATION**

### **13.1 Waste treatment methods**

Waste should be recycled or disposed of according to the legislation in force, preferably by an approved recycling or waste treatment company.

## **14. TRANSPORT INFORMATION**

### **14.1 UN-number**

1169

### **14.2 UN proper shipping name**

**Land transport:** ADR/RID; Dispatch Name: EXTRAKTE, AROMATISCH, FLÜSSIG

**Transport by sea:** IMDG/IMO; Technical Name: EXTRACTS, AROMATIC, LIQUID

**Transport by air:** ICAO/IATA; Technical Name: EXTRACTS, AROMATIC, LIQUID

### **14.3 Transport hazard class**

**ADR/RID:** Class 3

**IMDG/IMO:** Class 3

**ICAO/IATA:** Class 3

#### 14.4 Packing group

**ADR/RID:** Packing group III, Kemler code: 30  
**IMDG/IMO:** Packing group III  
**ICAO/IATA:** Packing group III

#### 14.5 Environmental hazards

IMDG - Sea pollutant: Yes

#### 14.6 Special precautions for user

Not applicable.

#### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code

Not applicable.

### 15. REGULATORY INFORMATION

#### 15.1 Safety, health and environmental regulations (legislation) specific for the substance or mixture

Council Directive 67/548/EEC on the approximation of the laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances and its subsequent amendments.

Directive 1999/45/EC of the European Parliament concerning the approximation of the laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous preparations and its subsequent amendments.

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

Directive 2003/15/EC

Directive 2006/8/EC

Directive 91/322/EEC

Directive 2000/39/EC

Regulation (EC) No 1907/2006 (REACH) and its subsequent amendments

Regulation (EC) No 1272/2008 (CLP)

Regulation (EC) No 790/2009

Directive 2003/105/EC - Protection of workers - Control of major-accident hazards involving dangerous substances and its subsequent amendments

German Regulation on Substances Hazardous to Water 2005 (VwVwS),

#### 15.2 Chemical safety assessment

Not relevant.

### 16. OTHER INFORMATION

#### Latest changes

This data sheet replaces all previous editions. The content of the SDS is regulated by the Regulation (EC) n°1907/2006 (REACH).

#### Common shortened form:

**ADR:** European Agreement concerning the International Carriage of Dangerous Goods by Road

**CAS:** Chemical Abstracts Service (division of the American Chemical Society)

**CLP:** Classification, Labeling, Packaging

**EINECS:** European Inventory of Existing Commercial Chemical Substances

**FEMA:** Federal Emergency Management Agency

**GHS:** Globally Harmonized System of Classification and Labeling of Chemicals

**IATA:** Dangerous Goods Regulation by the "International Air Transport Association" (IATA)

**ICAO:** Technical Instructions by the "International Civil Aviation Organization" (ICAO)

**IMDG:** International Maritime Code for Dangerous Goods

**IMO:** International Maritime Organization

**INCI:** International Nomenclature of Cosmetic Ingredients

**LC50:** Lethal Concentration for 50 percent of the test population

**LD50:** Lethal Dose for 50 percent of the test population

**REACH:** Registration, Evaluation, Authorisation and Restriction of Chemicals

**PBT:** Persistent Bioaccumulating Toxicants

**vPvB:** Very Persistent and Very Bioaccumulative Substance



RID: Regulation Concerning the International Transport of Dangerous Goods by Rail  
STOT: Specific Target Organ Toxicity  
TSCA: Toxic Substances Control Act

**Hazard statements according to regulation (EC) 1272/2008 (CLP):**

<b>Code</b>	<b>Description</b>
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

**Precaution statements according to regulation (EC) 1272/2008 (CLP):**

<b>Code</b>	<b>Description</b>
<b>Prevention:</b>	
P102	Keep out of reach of children.
P103	Read label before use.
P210	Keep away from heat /sparks /open flames/hot surfaces. – No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical /ventilating /lighting /.../equipment.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust /fume /gas /mist /vapours /spray.
P262	Do not get in eyes, on skin, or on clothing.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves /eye protection.

**Response:**

P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor /physician.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321	Specific treatment (see on this label).
P331	Do NOT induce vomiting.
P333+P313	If skin irritation or rash occurs: Get medical advice /attention.
P337+P313	If eye irritation persists: Get medical advice /attention.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use CO2 for extinction.
P391	Collect spillage.

**Storage:**

P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

**Disposal:**

P501	Dispose of contents /container to special waste.
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**Training advice:**

Possible hazards:	see section 2
First aid measures:	see section 4
Firefighting measures:	see section 5
Personal protection equipment:	see section 8
Waste treatment methods:	see section 13

The information this contains is based on the state of our knowledge about the product concerned at the time of update. They are given in good faith. The information given is designed only as 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. Even though precaution has been taken to ensure accuracy of data, no guarantee can be given. Because data's are taken partly from other sources.

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To be observed: This data sheet contains product data as it was available to Ayus GmbH at the date of release. Ayus GmbH cannot take any responsibility for the correctness of the data – this lies entirely with the producer or manufacturer. The responsibility for proper utilization of the product, as well as its handling and storage lies with the buyer or user. They have been educated about the consequences of misuse of the product.

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