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

#### Oil of orange, floridian

article number: 6728 Version: **4.0 en** 

Replaces version of: 2023-03-09

Version: (3)



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

#### **Product identifier** 1.1

Identification of the substance Oil of orange, floridian

Article number 6728

EC number 232-433-8 CAS number 8028-48-6

Alternative name(s) Oleum Aurantii

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

Relevant identified uses: Laboratory chemical

Laboratory and analytical use

Uses advised against: Do not use for products which come into contact

> with foodstuffs. Do not use for private purposes (household). Food, drink and animal feeding-

stuffs.

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

Carl Roth GmbH + Co. KG Schoemperlenstr. 3-5 D-76185 Karlsruhe Germany

**Telephone:**+49 (0) 721 - 56 06 0 Telefax: +49 (0) 721 - 56 06 149 e-mail: sicherheit@carlroth.de Website: www.carlroth.de

Competent person responsible for the safety data Department Health, Safety and Environment

sheet:

sicherheit@carlroth.de e-mail (competent person):

#### **Emergency telephone number** 1.4

Name	Street	Postal code/city	Telephone	Website
National Poisons Information Service City Hospital	Dudley Rd	B187QH Birmingham	844 892 0111	

## **SECTION 2: Hazards identification**

#### Classification of the substance or mixture 2.1

United Kingdom (en) Page 1 / 20

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



article number: 6728



#### Classification acc. to GHS

Section	Hazard class	Cat- egory	Hazard class and category	Hazard statement
2.6	Flammable liquid	3	Flam. Liq. 3	H226
3.2	Skin corrosion/irritation	2	Skin Irrit. 2	H315
3.45	Skin sensitisation	1	Skin Sens. 1	H317
3.10	Aspiration hazard	1	Asp. Tox. 1	H304
4.1C	Hazardous to the aquatic environment - chronic hazard	2	Aquatic Chronic 2	H411

For full text of abbreviations: see SECTION 16

#### The most important adverse physicochemical, human health and environmental effects

The product is combustible and can be ignited by potential ignition sources. Spillage and fire water can cause pollution of watercourses.

#### 2.2 **Label elements**

#### Labelling

Signal word **Danger** 

#### **Pictograms**

GHS02, GHS07, **GHS08, GHS09** 



#### **Hazard 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
H411	Toxic to aquatic life with long lasting effects

#### **Precautionary statements**

#### **Precautionary statements - prevention**

P210 Keep away from heat. No smoking P273 Avoid release to the environment P280 Wear protective gloves

#### **Precautionary statements - response**

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

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

P331 Do NOT induce vomiting

United Kingdom (en) Page 2 / 20

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

# ROTH

#### Oil of orange, floridian

article number: 6728

#### 2.3 Other hazards

#### Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

#### **Endocrine disrupting properties**

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq$  0,1%.

## **SECTION 3: Composition/information on ingredients**

#### 3.1 Substances

"UVCB substance" (substance of unknown or variable composition).

Name of substance Oil of orange

CAS No 8028-48-6

EC No 232-433-8

#### Impurities/additives/constituents:

Name of substance	Identifier	Wt%
DL-Limonene	CAS No 138-86-3	90 – < 100
	EC No 205-341-0	
	Index No 601-029-00-7	
Myrcene	CAS No 123-35-3	1 - < 10
	EC No 204-622-5	
Citral	CAS No 5392-40-5	0,1 - < 1
	EC No 226-394-6	
	Index No 605-019-00-3	
Linalool	CAS No 78-70-6	0,1 - < 1
	EC No 201-134-4	
	Index No 603-235-00-2	
DL-α-Pinene	CAS No 80-56-8	0,1 - < 1
	EC No 201-291-9	
δ-3-Carene	CAS No 13466-78-9	0,1 - < 0,25
	EC No 236-719-3	

United Kingdom (en) Page 3 / 20

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

#### Oil of orange, floridian

article number: 6728

#### **SECTION 4: First aid measures**

#### **Description of first aid measures** 4.1



#### **General notes**

Take off contaminated clothing.

#### Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following skin contact

Rinse skin with water/shower. After contact with skin, wash immediately with plenty of water. In case of skin reactions, consult a physician. In case of skin irritation, consult a physician.

#### Following eye contact

Rinse cautiously with water for several minutes. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following ingestion

Call a physician immediately. Observe aspiration hazard if vomiting occurs.

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

Aspiration hazard, Irritation, Allergic reactions

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

none

#### **SECTION 5: Firefighting measures**

#### 5.1 **Extinguishing media**



#### Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings! water spray, dry extinguishing powder, BC-powder, carbon dioxide (CO<sub>2</sub>)

#### Unsuitable extinguishing media

water jet

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

Combustible. Vapours may form explosive mixtures with air. Solvent vapours are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures.

#### **Hazardous combustion products**

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

United Kingdom (en) Page 4 / 20



#### Remarks

For full text of abbreviations: see SECTION 16

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

#### Oil of orange, floridian

article number: 6728



#### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Do not allow firefighting water to enter drains or water courses. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

#### **SECTION 6: Accidental release measures**

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



#### For non-emergency personnel

Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray. Avoidance of ignition sources.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

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

#### Advice on how to contain a spill

Covering of drains.

#### Advice on how to clean up a spill

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

#### Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

#### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

# **SECTION 7: Handling and storage**

#### 7.1 Precautions for safe handling

Provision of sufficient ventilation. When not in use, keep containers tightly closed.

#### Measures to prevent fire as well as aerosol and dust generation



Keep away from sources of ignition - No smoking.

Take precautionary measures against static discharge.

#### Measures to protect the environment

Avoid release to the environment.

#### Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs. When using do not smoke.

United Kingdom (en) Page 5 / 20

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

#### Oil of orange, floridian

article number: 6728



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

Store in a well-ventilated place. Keep container tightly closed.

#### **Incompatible substances or mixtures**

Observe hints for combined storage.

#### Consideration of other advice:

Ground/bond container and receiving equipment.

#### **Ventilation requirements**

Use local and general ventilation.

#### Specific designs for storage rooms or vessels

Recommended storage temperature: 15 – 25 °C

#### 7.3 Specific end use(s)

No information available.

#### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

#### **National limit values**

#### **Occupational exposure limit values (Workplace Exposure Limits)**

This information is not available.

#### **Human health values**

Relevant DNELs and other threshold levels								
Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time				
DNEL	31,1 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects				
DNEL	8,89 mg/kg bw/ day	human, dermal	worker (industry)	chronic - systemic effects				
DNEL	185,8 μg/cm²	human, dermal	worker (industry)	acute - local effects				

#### **Relevant DNELs of components**

Name of sub- stance	CAS No	End- point	Threshol d level	Protection goal, route of exposure	Used in	Exposure time
DL-α-Pinene	80-56-8	DNEL	3,8 mg/m³	human, inhalat- ory	worker (industry)	chronic - systemic effects
DL-α-Pinene	80-56-8	DNEL	0,542 mg/ kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Linalool	78-70-6	DNEL	2,8 mg/m <sup>3</sup>	human, inhalat- ory	worker (industry)	chronic - systemic effects
Linalool	78-70-6	DNEL	16,5 mg/ m³	human, inhalat- ory	worker (industry)	acute - systemic effects
Linalool	78-70-6	DNEL	2,5 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Linalool	78-70-6	DNEL	5 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects

United Kingdom (en) Page 6 / 20

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



article number: 6728



Relevant DNELs of components							
Name of sub- stance	CAS No	End- point	Threshol d level	Protection goal, route of exposure	Used in	Exposure time	
Citral	5392-40-5	DNEL	9 mg/m³	human, inhalat- ory	worker (industry)	chronic - systemic effects	
Citral	5392-40-5	DNEL	1,7 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects	
Citral	5392-40-5	DNEL	140 μg/ cm²	human, dermal	worker (industry)	chronic - local ef- fects	

#### **Environmental values**

Relevant PNECs and other threshold levels								
End- point	Threshold level	Organism	Organism Environmental compartment					
PNEC	5,77 <sup>µg</sup> / <sub>l</sub>	aquatic organisms	water	intermittent release				
PNEC	5,4 <sup>µg</sup> / <sub>l</sub>	aquatic organisms	freshwater	short-term (single instance)				
PNEC	0,54 <sup>µg</sup> / <sub>l</sub>	aquatic organisms	marine water	short-term (single instance)				
PNEC	2,1 <sup>mg</sup> / <sub>l</sub>	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)				
PNEC	1,3 <sup>mg</sup> / <sub>kg</sub>	aquatic organisms	freshwater sediment	short-term (single instance)				
PNEC	0,13 <sup>mg</sup> / <sub>kg</sub>	aquatic organisms	marine sediment	short-term (single instance)				
PNEC	0,261 <sup>mg</sup> / <sub>kg</sub>	terrestrial organisms	soil	short-term (single instance)				

Relevant PNECs of components							
Name of sub- stance	CAS No	End- point	Threshol d level	Organism	Environmental compartment	Exposure time	
DL-α-Pinene	80-56-8	PNEC	0,606 <sup>µg</sup> / <sub>l</sub>	aquatic organ- isms	freshwater	short-term (single instance)	
DL-α-Pinene	80-56-8	PNEC	0,061 <sup>µg</sup> / <sub>l</sub>	aquatic organ- isms	marine water	short-term (single instance)	
DL-α-Pinene	80-56-8	PNEC	0,2 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)	
DL-α-Pinene	80-56-8	PNEC	157 <sup>µg</sup> / <sub>kg</sub>	aquatic organ- isms	freshwater sedi- ment	short-term (single instance)	
DL-α-Pinene	80-56-8	PNEC	15,7 <sup>µg</sup> / <sub>kg</sub>	aquatic organ- isms	marine sediment	short-term (single instance)	
DL-α-Pinene	80-56-8	PNEC	31,7 <sup>µg</sup> / <sub>kg</sub>	terrestrial organ- isms	soil	short-term (single instance)	
Linalool	78-70-6	PNEC	0,2 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	freshwater	short-term (single instance)	
Linalool	78-70-6	PNEC	0,02 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	marine water	short-term (single instance)	
Linalool	78-70-6	PNEC	10 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)	

United Kingdom (en) Page 7 / 20

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



article number: 6728



short-term (single

instance)

short-term (single

instance)

#### **Relevant PNECs of components Threshol** Name of sub-**CAS No** End-**Organism Environmental Exposure time** point d level stance compartment $2,22 \frac{mg}{kg}$ Linalool 78-70-6 **PNEC** aquatic organfreshwater sedishort-term (single instance) isms ment 0,222 <sup>mg</sup>/ Linalool 78-70-6 **PNEC** aquatic organmarine sediment short-term (single isms instance) 0,327 <sup>mg</sup>/ Linalool 78-70-6 **PNEC** terrestrial organsoil short-term (single instance) isms 0,007 mg/ı Citral 5392-40-5 **PNEC** aquatic organfreshwater short-term (single isms instance) short-term (single Citral 5392-40-5 **PNEC** 0,001 <sup>mg</sup>/<sub>1</sub> aguatic organmarine water instance) isms 1,6 mg/1 aquatic organ-Citral 5392-40-5 **PNEC** sewage treatment short-term (single isms plant (STP) instance) Citral 5392-40-5 **PNFC** 0.125 mg/ aquatic organfreshwater sedishort-term (single ment isms instance)

#### 8.2 Exposure controls

#### Individual protection measures (personal protective equipment)

**PNEC** 

**PNFC** 

5392-40-5

5392-40-5

0,013 mg/

kg

0.021 mg/

kg

aquatic organ-

isms

terrestrial organ-

isms

marine sediment

soil

#### Eye/face protection

Citral

Citral





Use safety goggle with side protection.

#### Skin protection





#### hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 °C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

#### type of material

NBR (Nitrile rubber)

United Kingdom (en) Page 8 / 20

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

#### Oil of orange, floridian

article number: 6728

#### material thickness

0,4 mm

#### breakthrough times of the glove material

>480 minutes (permeation: level 6)

#### other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

#### **Respiratory protection**





Respiratory protection necessary at: Aerosol or mist formation. Type: A (against organic gases and vapours with a boiling point of > 65 °C, colour code: Brown).

#### **Environmental exposure controls**

Keep away from drains, surface and ground water.

#### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

Physical state liquid Colour orange

Odour characteristic <-25 °C (ECHA) Melting point/freezing point 165 - 175 °C Boiling point or initial boiling point and boiling

range

flammable liquid in accordance with GHS criteria **Flammability** 

Lower and upper explosion limit not determined

50°C Flash point

235 °C at 1.016 hPa (ECHA) Auto-ignition temperature

Decomposition temperature not relevant pH (value) not determined 1,17 mm<sup>2</sup>/<sub>s</sub> at 20 °C Kinematic viscosity 0,99 mPa s at 20 °C Dynamic viscosity

Solubility(ies)

Water solubility (practically insoluble)

Partition coefficient

Partition coefficient n-octanol/water (log value): this information is not available

Vapour pressure 1,9 hPa at 25 °C

United Kingdom (en) Page 9 / 20



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

#### Oil of orange, floridian

article number: 6728

Density and/or relative density

Density  $0.846 \, \mathrm{g/_{cm^3}}$  at 20 °C (ECHA)

Relative vapour density Information on this property is not available.

Particle characteristics not relevant (liquid)

Other safety parameters

Oxidising properties none

9.2 Other information

Information with regard to physical hazard

classes:

There is no additional information.

Other safety characteristics:

Refractive index 1,468 – 1,48

# **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

It's a reactive substance. Risk of ignition.

#### If heated

Risk of ignition. Vapours may form explosive mixtures with air.

#### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

#### 10.3 Possibility of hazardous reactions

Violent reaction with: strong oxidiser

#### 10.4 Conditions to avoid

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

#### 10.5 Incompatible materials

There is no additional information.

#### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

# **SECTION 11: Toxicological information**

#### 11.1 Information on toxicological effects

Classification acc. to GHS

#### **Acute toxicity**

Shall not be classified as acutely toxic.

United Kingdom (en) Page 10 / 20

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



article number: 6728



Acute toxicity					
Exposure route	Endpoint	Value	Species	Method	Source
oral	LD50	>5.000 <sup>mg</sup> / <sub>kg</sub>	rat		ECHA
dermal	LD50	>5.000 <sup>mg</sup> / <sub>kg</sub>	rabbit		ECHA

#### **Acute toxicity of components**

Name of substance	CAS No	Exposure route	Endpoint	Value	Species
DL-Limonene	138-86-3	oral	LD50	5.300 <sup>mg</sup> / <sub>kg</sub>	rat
Myrcene	123-35-3	oral	LD50	>3.380 <sup>mg</sup> / <sub>kg</sub>	mouse
Myrcene	123-35-3	dermal	LD50	>5.000 <sup>mg</sup> / <sub>kg</sub>	rabbit
DL-α-Pinene	80-56-8	dermal	LD50	>2.000 <sup>mg</sup> / <sub>kg</sub>	rat
DL-α-Pinene	80-56-8	oral	LD50	3.700 <sup>mg</sup> / <sub>kg</sub>	rat
Linalool	78-70-6	oral	LD50	2.790 <sup>mg</sup> / <sub>kg</sub>	rat
Linalool	78-70-6	dermal	LD50	5.610 <sup>mg</sup> / <sub>kg</sub>	rabbit
Citral	5392-40-5	oral	LD50	6.800 <sup>mg</sup> / <sub>kg</sub>	rat
Citral	5392-40-5	dermal	LD50	>2.000 <sup>mg</sup> / <sub>kg</sub>	rat
δ-3-Carene	13466-78-9	oral	LD50	4.800 <sup>mg</sup> / <sub>kg</sub>	rat

#### Skin corrosion/irritation

Causes skin irritation.

#### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

#### Respiratory or skin sensitisation

May cause an allergic skin reaction.

#### **Germ cell mutagenicity**

Shall not be classified as germ cell mutagenic.

#### Carcinogenicity

Shall not be classified as carcinogenic.

#### **Reproductive toxicity**

Shall not be classified as a reproductive toxicant.

#### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

#### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

#### **Aspiration hazard**

May be fatal if swallowed and enters airways.

United Kingdom (en) Page 11 / 20

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

#### Oil of orange, floridian

article number: 6728



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

#### If swallowed

vomiting, aspiration hazard

#### • If in eyes

causes slight to moderate irritation

#### • If inhaled

Data are not available.

#### • If on skin

causes skin irritation, May produce an allergic reaction, pruritis, localised redness

#### Other information

none

#### 11.2 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq$  0,1%.

#### 11.3 Information on other hazards

There is no additional information.

# **SECTION 12: Ecological information**

#### 12.1 Toxicity

Toxic to aquatic life with long lasting effects.

#### Aquatic toxicity (acute) of components

	<u> </u>				
Name of sub- stance	CAS No	Endpoint	Value	Species	Exposure time
DL-Limonene	138-86-3	EC50	17 <sup>mg</sup> / <sub>l</sub>	daphnia magna	48 h
DL-Limonene	138-86-3	LC50	80 <sup>mg</sup> / <sub>l</sub>	rainbow trout (Onco- rhynchus mykiss)	96 h
Myrcene	123-35-3	EC50	1,47 <sup>mg</sup> / <sub>l</sub>	aquatic invertebrates	48 h
Myrcene	123-35-3	EC50	0,31 <sup>mg</sup> / <sub>l</sub>	algae	72 h
Myrcene	123-35-3	ErC50	0,342 <sup>mg</sup> / <sub>l</sub>	algae	72 h
DL-α-Pinene	80-56-8	LC50	0,303 <sup>mg</sup> / <sub>l</sub>	fish	96 h
DL-α-Pinene	80-56-8	EC50	0,475 <sup>mg</sup> / <sub>l</sub>	aquatic invertebrates	48 h
Linalool	78-70-6	LC50	27,8 <sup>mg</sup> / <sub>l</sub>	fish	96 h
Linalool	78-70-6	EC50	59 <sup>mg</sup> / <sub>l</sub>	aquatic invertebrates	48 h
Linalool	78-70-6	ErC50	156,7 <sup>mg</sup> / <sub>l</sub>	algae	96 h
Citral	5392-40-5	LC50	6,78 <sup>mg</sup> / <sub>l</sub>	fish	96 h
Citral	5392-40-5	EC50	6,8 <sup>mg</sup> / <sub>l</sub>	aquatic invertebrates	48 h
Citral	5392-40-5	ErC50	103,8 <sup>mg</sup> / <sub>l</sub>	algae	72 h

United Kingdom (en) Page 12 / 20

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



#### Oil of orange, floridian

article number: 6728

#### Aquatic toxicity (chronic) of components

Name of sub- stance	CAS No	Endpoint	Value	Species	Exposure time
Linalool	78-70-6	EC50	>100 <sup>mg</sup> / <sub>l</sub>	microorganisms	30 min
Citral	5392-40-5	EC50	160 <sup>mg</sup> / <sub>l</sub>	microorganisms	30 min

#### 12.2 Persistence and degradability

#### **Biodegradation**

Not readily biodegradable.

#### **Degradability of components**

Name of substance	CAS No	Process	Degrada- tion rate	Time	Method	Source
Myrcene	123-35-3	oxygen deple- tion	76 %	28 d		ECHA
DL-α-Pinene	80-56-8	oxygen deple- tion	68 %	28 d		ECHA
Linalool	78-70-6	oxygen deple- tion	40,9 %	5 d		ECHA
Citral	5392-40-5	biotic/abiotic	>90 %	28 d		
Citral	5392-40-5	oxygen deple- tion	>90 %	28 d		ECHA

#### 12.3 Bioaccumulative potential

Does not significantly accumulate in organisms.

#### **Bioaccumulative potential of components**

Name of substance	CAS No	BCF	Log KOW	BOD5/COD
DL-Limonene	138-86-3		4,57	
Myrcene	123-35-3		4,82 (pH value: ~6,5, 30 °C)	
DL-α-Pinene	80-56-8		4,83	
Linalool	78-70-6		2,9 (pH value: 7, 20 °C)	
Citral	5392-40-5	89,72	2,76 (25 °C)	
δ-3-Carene	13466-78-9		4,38	

#### 12.4 Mobility in soil

Data are not available.

#### 12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

#### 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq$  0,1%.

United Kingdom (en) Page 13 / 20

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

#### Oil of orange, floridian

article number: 6728

#### 12.7 Other adverse effects

Data are not available.

#### **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

#### Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

#### 13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

#### Properties of waste which render it hazardous

**HP3** flammable

**HP 4** irritant - skin irritation and eye damage

**HP 5** specific target organ toxicity (STOT)/aspiration toxicity

**HP 13** sensitising

HP 14 ecotoxic

#### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions. Non-contaminated packages may be recycled.

# **SECTION 14: Transport information**

#### 14.1 UN number or ID number

ADRRID	UN 1197
IMDG-Code	UN 1197
ICAO-TI	UN 1197

#### 14.2 UN proper shipping name

ADRRID	EXTRACTS, LIQUID
IMDG-Code	EXTRACTS, LIQUID
ICAO-TI	Extracts, liquid

#### 14.3 Transport hazard class(es)

ADRRID	3
IMDG-Code	3

United Kingdom (en) Page 14 / 20



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

#### Oil of orange, floridian

article number: 6728

ICAO-TI 3

14.4 Packing group

ADRRID III
IMDG-Code III
ICAO-TI III

**14.5 Environmental hazards** hazardous to the aquatic environment

14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

14.8 Information for each of the UN Model Regulations

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)Additional information

Proper shipping name EXTRACTS, LIQUID

Particulars in the transport document UN1197, EXTRACTS, LIQUID, 3, III, (D/E), environ-

mentally hazardous

Classification code F1

Danger label(s) 3, "Fish and tree"

3

Environmental hazards yes (hazardous to the aquatic environment)

Special provisions (SP) 601

Excepted quantities (EQ) E1

Limited quantities (LQ) 5 L

Transport category (TC) 3

Tunnel restriction code (TRC) D/E

Hazard identification No 30

**Emergency Action Code** 3Y

Regulations concerning the International Carriage of Dangerous Goods by Rail (RID)Additional information

Classification code F1

**Danger label(s)** 3, "Fish and tree"

3

¥2

**Environmental hazards** Yes

Hazardous to water

Special provisions (SP) 601

Excepted quantities (EQ) E1

United Kingdom (en) Page 15 / 20



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

#### Oil of orange, floridian

article number: 6728

Limited quantities (LQ)5 LTransport category (TC)3Hazard identification No30

#### International Maritime Dangerous Goods Code (IMDG) - Additional information

Proper shipping name EXTRACTS, LIQUID

Particulars in the shipper's declaration UN1197, EXTRACTS, LIQUID, (Oil of orange), 3, III,

50°C c.c., MARINE POLLUTANT

Marine pollutant yes (hazardous to the aquatic environment)

Danger label(s) 3, "Fish and tree"





Special provisions (SP) 223, 955

Excepted quantities (EQ) E1
Limited quantities (LQ) 5 L

EmS F-E, S-D

Stowage category A

#### International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Proper shipping name Extracts, liquid

Particulars in the shipper's declaration UN1197, Extracts, liquid, 3, III

Environmental hazards yes (hazardous to the aquatic environment)

Danger label(s) 3



Special provisions (SP)

Excepted quantities (EQ)

Limited quantities (LQ)

10 L

# **SECTION 15: Regulatory information**

# 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Relevant provisions of the European Union (EU)

#### **Seveso Directive**

2012/18/EU (Seveso III)						
No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements		Notes		
E2	environmental hazards (hazardous to the aquatic environment, cat. 2)	200	500	57)		

#### Notation

57) Hazardous to the Aquatic Environment in category Chronic 2

United Kingdom (en) Page 16 / 20



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



40

#### Oil of orange, floridian

article number: 6728

#### **Deco-Paint Directive**

VOC content	100 %
VOC content	846 <sup>g</sup> / <sub>l</sub>

#### **Industrial Emissions Directive (IED)**

VOC content	100 %
VOC content	846 <sup>g</sup> / <sub>l</sub>

# Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

not listed

# Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

not listed

#### **Water Framework Directive (WFD)**

not listed

#### Regulation on the marketing and use of explosives precursors

not listed

#### **Regulation on drug precursors**

not listed

#### Regulation on substances that deplete the ozone layer (ODS)

not listed

#### Regulation concerning the export and import of hazardous chemicals (PIC)

not listed

#### Regulation on persistent organic pollutants (POP)

not listed

#### National regulations(GB)

# List of substances subject to authorisation (GB REACH, Annex 14) / SVHC - candidate list not listed

#### Restrictions according to GB REACH, Annex 17

# Name of substance Name acc. to inventory CAS No No Oil of orange this product meets the criteria for classification in accordance with Regulation No 3 1272/2008/EC

flammable / pyrophoric

#### Other information

Oil of orange

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

United Kingdom (en) Page 17 / 20

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



article number: 6728



#### **National inventories**

Country	Inventory	Status
AU	AIIC	substance is listed
CA	DSL	substance is listed
CN	IECSC	substance is listed
EU	ECSI	substance is listed
EU	REACH Reg.	substance is listed
KR	KECI	substance is listed
MX	INSQ	substance is listed
NZ	NZIoC	substance is listed
PH	PICCS	substance is listed
TR	CICR	substance is listed
TW	TCSI	substance is listed
VN	NCI	substance is listed

Legend

AIIC Australian Inventory of Industrial Chemicals
CICR Chemical Inventory and Control Regulation
DSL Domestic Substances List (DSL)
ECSI EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC Inventory of Existing Chemical Substances Produced or Imported in China
INSQ National Inventory of Chemical Substances
KECI Korea Existing Chemicals Inventory
NCI National Chemical Inventory
NZIOC New Zealand Inventory of Chemicals
PICCS Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.
TCSI Taiwan Chemical Substance Inventory

#### 15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance.

## **SECTION 16: Other information**

#### Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
2.3	Endocrine disrupting properties: Does not contain an endocrine disruptor (EDC) in a concentration of ≥ 0,1%.	Endocrine disrupting properties: Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.	yes
15.1		National inventories: change in the listing (table)	yes

#### Abbreviations and acronyms

United Kingdom (en) Page 18 / 20

# **Safety data sheet** acc. to Regulation (EC) No. 1907/2006 (REACH)

## Oil of orange, floridian

article number: 6728



Abbr.	Descriptions of used abbreviations
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
COD	Chemical oxygen demand
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
ED	Endocrine disruptor
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
GB REACH	The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended)
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
log KOW	n-Octanol/water
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regula- tions concerning the International carriage of Dangerous goods by Rail)

Page 19 / 20 United Kingdom (en)

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



#### Oil of orange, floridian

article number: 6728

Abbr.	Descriptions of used abbreviations
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative

#### Key literature references and sources for data

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

#### List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
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.
H411	Toxic to aquatic life with long lasting effects.

#### **Disclaimer**

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

United Kingdom (en) Page 20 / 20