

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## LIME OXIDE

Version 1.2

Revision Date 17 MAR 2012

Print Date 29 MAR 2012

### 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Sales No. : LIME OXIDE

Substance name : MONOTERPENES C10H16 & CYCLIC MONOTERPENE  
ETHERS-C10H18O

Identifier

CAS : 73018-51-6  
EINECS : 277-225-8

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

Intended Use Fragrances : Perfumery ingredient

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

Company :  
Givaudan Suisse SA  
Chemin de la Parfumerie 5  
CH-1214 VERNIER

Telephone : +41227809111  
Telefax : +41227809150  
E-mail address : global.msds\_fragrances\_raps@givaudan.com  
Responsible/issuing person

#### 1.4 Emergency telephone number

+33172110003

### 2. Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3	H226: Flammable liquid and vapour.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Skin sensitization, Category 1	H317: May cause an allergic skin reaction.
Aspiration hazard, Category 1	H304: May be fatal if swallowed and enters airways.
Chronic aquatic toxicity, Category 2	H411: Toxic to aquatic life with long lasting effects.

##### Classification (67/548/EEC, 1999/45/EC)

Flammable	R10: Flammable.
Harmful	R65: Harmful: may cause lung damage if swallowed.
Sensitising	R43: May cause sensitization by skin contact.

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Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.  
H304 May be fatal if swallowed and enters airways.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**  
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P315 Get immediate medical advice/ attention.  
P331 Do NOT induce vomiting.  
**Storage:**  
P403 + P235 Store in a well-ventilated place. Keep cool.

Hazardous components which must be listed on the label:

- (R)-p-mentha-1,8-diene 5989-27-5

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Labelling according to EC Directives (67/548/EEC, 1999/45/EC)

Hazard pictograms :



Harmful

Dangerous  
for the  
environment

R-phrase(s) :

R10  
R43  
R51/53

Flammable.  
May cause sensitization by skin contact.  
Toxic to aquatic organisms, may cause  
long-term adverse effects in the aquatic  
environment.  
Harmful: may cause lung damage if  
swallowed.

S-phrase(s) :

S 9  
S24  
S37  
S57  
  
S60  
  
S62

Keep container in a well-ventilated place.  
Avoid contact with skin.  
Wear suitable gloves.  
Use appropriate container to avoid  
environmental contamination.  
This material and its container must be  
disposed of as hazardous waste.  
If swallowed, do not induce vomiting: seek  
medical advice immediately and show this  
container or label.

Hazardous components which must be listed on the label:

- 1,6-Octadien-3-ol, 3,7-dimethyl-, acid- 73018-51-6  
isomerized
- (R)-p-mentha-1,8-diene 5989-27-5

2.3 Other hazards

no data available

3. Composition/information on ingredients

3.1 Substances

Chemical Name	CAS-No. EINECS-No. / ELINCS No.	Concentration [%]
(R)-p-mentha-1,8-diene	5989-27-5 227-813-5	>= 5 - < 10

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Hydrocarbons : 50 %

#### 4. First aid measures

##### 4.1 Description of first aid measures

General advice : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.  
Symptoms of poisoning may only appear several hours later.  
Do not leave the victim unattended.

If inhaled : Move to fresh air.  
If unconscious place in recovery position and seek medical advice.  
If symptoms persist, call a physician.

In case of skin contact : If on skin, rinse well with water.  
If on clothes, remove clothes.

In case of eye contact : Immediately flush eye(s) with plenty of water.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.  
Do NOT induce vomiting.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
Take victim immediately to hospital.

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

Symptoms : no data available

Risks : no data available

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

Treatment : no data available

#### 5. Fire-fighting measures

##### 5.1 Extinguishing media

Suitable extinguishing media : Dry chemical  
Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)

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Water spray

Unsuitable extinguishing media : no data available

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

Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.

### 5.3 Advice for firefighters

Special protective equipment for fire-fighters : Wear self contained breathing apparatus for fire fighting if necessary.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.  
For safety reasons in case of fire, cans should be stored separately in closed containments.  
Use a water spray to cool fully closed containers.

## 6. Accidental release measures

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

Personal precautions : Use personal protective equipment.  
Ensure adequate ventilation.  
Remove all sources of ignition.  
Evacuate personnel to safe areas.  
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

### 6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.

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

Methods for cleaning up : Contain spillage, and then collect 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).

### 6.4 Reference to other sections

not applicable

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**7. Handling and storage**

**7.1 Precautions for safe handling**

- Advice on safe handling : Avoid formation of aerosol.  
Do not breathe vapours/dust.  
Avoid exposure - obtain special instructions before use.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Take precautionary measures against static discharges.  
Provide sufficient air exchange and/or exhaust in work rooms.  
Open drum carefully as content may be under pressure.  
Dispose of rinse water in accordance with local and national regulations.
- Advice on protection against fire and explosion : Do not spray on a naked flame or any incandescent material.  
Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours).  
Keep away from open flames, hot surfaces and sources of ignition.
- Temperature class : no data available  
Fire-fighting class : no data available  
Dust explosion class : no data available

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

- Requirements for storage areas and containers : No smoking.  
Keep container tightly closed in a dry and well-ventilated place.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Observe label precautions.  
Electrical installations / working materials must comply with the technological safety standards.
- Further information on storage conditions : no data available  
Advice on common storage : no data available  
German storage class : no data available  
Other data : No decomposition if stored and applied as directed.

**7.3 Specific end uses**

- Specific use(s) : no data available

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**8. Exposure controls/personal protection**

**8.1 Control parameters**

Contains no substances with occupational exposure limit values.

**8.2 Exposure controls**

**Personal protective equipment**

- Hand protection : The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Eye protection : Eye wash bottle with pure water  
Tightly fitting safety goggles  
Wear face-shield and protective suit for abnormal processing problems.
- Skin and body protection : impervious clothing  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Hygiene measures : When using do not eat or drink.  
When using do not smoke.  
Wash hands before breaks and at the end of workday.

**Environmental exposure controls**

- General advice : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.

**9. Physical and chemical properties**

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

- Physical state : liquid
- Form : liquid
- Colour : colourless, Pale yellow
- Taste : not determined
- Odour : Citrus-like, Lime-like, Fresh, Terpenic
- Odour Threshold : 3,3806 ng/l
- Flash point : 50 °C Method: closed cup
- Lower explosion limit : not determined
- Upper explosion limit : not determined
- Flammability (solid, gas) : no data available
- Oxidizing properties : no data available

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Autoignition temperature	: no data available
Decomposition temperature	: no data available
Molecular Weight	: 154,00 g/mol
pH	: no data available
Melting point	: not determined
Boiling point	: not determined
Vapour pressure	: 1,1732 hPa at 20 °C
Density	: 852,97 kg/m <sup>3</sup> at 20 °C
Bulk density	: not applicable
Water solubility	: 627 mg/l
Solubility/qualitative	: no data available
Partition coefficient: n-octanol/water	: log Pow: > 3,4 Method: OECD Test Guideline 117
Viscosity, kinematic	: no data available
Relative vapour density	: no data available
Evaporation rate	: no data available
Explosive properties	: no data available

### 10. Stability and reactivity

#### 10.1 Reactivity

none

#### 10.2 Chemical stability

The product is chemically stable.

#### 10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed. Vapours may form explosive mixture with air.

#### 10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

#### 10.5 Incompatible materials

Materials to avoid : no data available

#### 10.6 Hazardous decomposition products

Hazardous decomposition products : no data available  
Thermal decomposition : no data available

### 11. Toxicological information

#### 11.1 Information on toxicological effects

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### Acute toxicity

**Acute oral toxicity** : LD50 rat  
Dose: > 5 000 mg/kg

**Acute inhalation toxicity** : This information is not available.

**Acute dermal toxicity** : This information is not available.

**Acute toxicity (other routes of administration)** : No data is available on the product itself.

### Skin corrosion/irritation

Skin irritation : May cause skin irritation and/or dermatitis.

### Serious eye damage/eye irritation

Eye irritation : Species: rabbit  
Eye irritation

### Respiratory or skin sensitization

Sensitisation : Skin sensitization guinea pig  
Result: Not sensitizing  
HRIPT Human  
Result: Not sensitizing  
at 2 % in Dimethyl phthalate

### Germ cell mutagenicity

Genotoxicity in vitro : Ames test  
negative  
Method: Mutagenicity (Escherichia coli - reverse mutation assay)

### Carcinogenicity

Carcinogenicity : No data is available on the product itself.

### Reproductive toxicity

Reproductive toxicity : No data is available on the product itself.

### Target Organ Systemic Toxicant - Single exposure

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Target Organ Systemic Toxicant - Single exposure : No data is available on the product itself.

### Target Organ Systemic Toxicant - Repeated exposure

Target Organ Systemic Toxicant - Repeated exposure : No data is available on the product itself.

### Target Organ Systemic Toxicant - Repeated exposure Aspiration hazard

Aspiration toxicity : The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

### Phototoxicity

Phototoxicity : Phototoxicity guinea pig  
Result:negative

Further information : Solvents may degrease the skin.

## 12. Ecological information

### 12.1 Toxicity

Toxicity to fish : no data available  
Toxicity to daphnia and other aquatic invertebrates. : no data available  
Toxicity to algae : no data available  
M-Factor  
(R)-p-mentha-1,8-diene : 1  
Toxicity to bacteria : no data available  
Toxicity to fish (Chronic toxicity) : no data available  
Toxicity to daphnia and other aquatic invertebrates. (Chronic toxicity) : no data available  
  
Acute aquatic toxicity : no data available  
Chronic aquatic toxicity : no data available  
Toxicity Data on Soil : no data available  
Other organisms relevant to the environment : no data available

### 12.2 Persistence and degradability

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Biodegradability : Result: Not readily biodegradable.  
Method: OECD Test Guideline 301 F  
Result: Not inherently biodegradable.  
Method: OECD Test Guideline 302 C

### 12.3 Bioaccumulative potential

Bioaccumulation : no data available

### 12.4 Mobility in soil

Mobility : no data available

Distribution among environmental compartments : no data available

Additional advice : no data available

Environmental fate and pathways

Physico-chemical removability : no data available

### 12.5 Results of PBT and vPvB assessment

no data available

### 12.6 Other adverse effects

Biochemical Oxygen Demand (BOD) : no data available

Dissolved organic carbon (DOC) : no data available

Chemical Oxygen Demand (COD) : no data available

Adsorbed organic bound halogens (AOX) : no data available

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.

## 13. Disposal considerations

### 13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.  
Do not burn, or use a cutting torch on, the empty drum.

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Dispose of in accordance with local regulations.

### 14. Transport information

#### ADR/RID/ADN

UN number : 1197  
Description of the goods : EXTRACTS, FLAVOURING, LIQUID  
Transport hazard class(es) : 3  
Packing group : III  
Hazard identification No : 30  
Labels : 3  
Tunnel restriction code : (D/E)  
Environmentally hazardous : yes

#### IATA/ICAO

UN number : 1197  
Proper shipping name : Extracts, flavouring, liquid  
Class : 3  
Packing group : III  
Labels : 3  
Environmentally hazardous : yes

Packing instruction (CAO) : 366  
Packing instruction (PAX) : 355  
Packing instruction (Ltd. Qty.) : Y344

#### IMDG

UN number : 1197  
Proper shipping name : EXTRACTS, FLAVOURING, LIQUID  
Class : 3  
Packing group : III  
Labels : 3  
EmS Fire : F-E  
EmS Spillage : S-D

Marine pollutant : yes  
Methyl isopropenyl cyclohexene

### 15. Regulatory information

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

Water contaminating class : WGK 2 water endangering

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### 15.2 Chemical Safety Assessment

no data available

### 16. Other information

#### Full text of R-phrases referred to under sections 2 and 3

R10	Flammable.
R43	May cause sensitization by skin contact.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65	Harmful: may cause lung damage if swallowed.

#### Full text of H-Statements referred to under sections 2 and 3.

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.

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.

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