

# Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



**599890**      **Vienna Lime**

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Revised edition: 28.05.2020

Version: 4

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## 1. Identification of the Substance/Mixture and of the Company/Undertaking

### 1.1. Product Identifier

*Product Name:* Vienna Lime

*Article No.:* 599890

*UFI:* --

### 1.2. Relevant identified Uses of the Substance or Mixture and Uses advised against

*Identified uses:*

*Manufacture of chemicals  
Environmental protection  
Water treatment chemicals  
Food and animal feed additive  
Manufacture of food and animal feed  
Pharmaceuticals  
Production of other non-metallic mineral products, e.g. gypsum, cement  
Paper products  
Production of paints, printing colors and putties  
Stone, gypsum, cement, glass and ceramic articles  
Construction industry*

*Uses advised against:*

### 1.3. Details of the Supplier of the Safety Data Sheet (Producer/Importer)

*Company:* Kremer Pigmente GmbH & Co. KG

*Address:* Hauptstr. 41-47, 88317 Aichstetten, Germany

*Tel./Fax.:* Tel +49 7565 914480, Fax +49 7565 1606

*Internet:* www.kremer-pigmente.com

*EMail:* info@kremer-pigmente.com

*Importer:* --

### 1.4. Emergency No.

*Emergency No.:* +49 7565 914480 (Mon-Fri 8:00 - 17:00)

#### 1.4.2 Poison Center:

## 2. Hazards Identification

### 2.1. Classification of the Substance or Mixture

*Classification according to Regulation  
(EC) No. 1272/2008 (CLP/GHS)*

*Skin irritation, hazard category 2  
Serious eye damage, hazard category 1  
Specific Target Organ Toxicity (single exposure), hazard category 3*

H315 Causes skin irritation.

Cat.: 2

H318 Causes serious eye damage.

Cat.: 1

H335 May cause respiratory irritation.

Cat.: 3

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## Possible Environmental Effects:

### 2.2. Label Elements

Classification according to Regulation  
(EC) No. 1272/2008 (CLP/GHS)

Hazard designation:



GHS05-2



GHS07

Signal word:

Danger

Hazard designation:

H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.

Safety designation:

P102	Keep out of reach of children.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P280	Wear protective gloves/ clothing/ eye/ face protection.
P302+P352	If on skin: Wash with soap and water.
P304+P340	If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses and continue rinsing.
P310	Immediately call a poison center or physician.
P501	Dispose of contents/ container according to regional, national and international regulations.

Hazardous components for labelling:

### 2.3. Other Hazards

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## 3. Composition/Information on Ingredients

### 3.1. Substance

### 3.2. Mixture

Chemical Characterization:                       $\text{CaMgO}_2$

Information on Components / Hazardous  
Ingredients:

Calcium magnesium oxide (H315-318-335); REACH Reg. No. 01-2119474202-47-0001	> 99 %	CAS-Nr: 37247-91-9 EINECS-Nr: 253-425-0 EC-Nr:
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Additional information:

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## 4. First Aid Measures

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## 4. 1. Description of the First Aid Measures

*General information:*

*Immediately get medical help.*

*After inhalation:*

*Take affected person to fresh air.  
Seek medical advice immediately.*

*After skin contact:*

*Remove contaminated clothing immediately. Wash off immediately with plenty of water and soap.  
If symptoms persist, consult a physician.*

*After eye contact:*

*Rinse open eyes with plenty of water for at least 15 minutes.  
Consult a physician immediately. Continue rinsing.*

*After ingestion:*

*Rinse mouth with water and give plenty of water to drink. Consult a physician.  
Do not induce vomiting.*

## 4. 2. Most important Symptoms and Effects, both Acute and Delayed

*Symptoms:*

*Irritates eyes, skin and respiratory system.  
Eye contact: risk of serious eye damage.  
Adverse systemic effects are not expected since the pH effect is the major health hazard.*

*Effects:*

## 4. 3. Indication of any Immediate Medical Attention and special Treatment needed

*Treatment:*

*Treat symptomatically.*

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## 5. Fire-Fighting Measures

### 5. 1. Extinguishing Media

*Suitable extinguishing media:*

*Use extinguishing media for surrounding fire.  
Foam, CO<sub>2</sub>, dry extinguishing powder.*

*Unsuitable extinguishing media:*

*Water*

### 5. 2. Special Hazards arising from the Substance or Mixture

*Special hazards:*

*Product is not flammable.  
Calcium magnesium oxide reacts with water and generates heat.  
Potential hazard for flammable material.*

### 5. 3. Advice for Firefighters

*Protective equipment:*

*Wear self-contained respiratory protective device.*

*Further information:*

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*Avoid the formation of dust.*

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## 6. Accidental Release Measures

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

*Personal precautions:*

*Ensure adequate ventilation.*

*Wear appropriate protective equipment. Keep spectators away.*

*Avoid contact with skin, eyes and clothing. Do not ingest or inhale.*

*Avoid formation of dust.*

### 6.2. Environmental Precautions

*Environmental precautions:*

*Prevent contamination of soils, drains and surface water.*

*Contact local authorities if product pollutes soil or vegetation.*

### 6.3. Methods and Material for Containment and Cleaning Up

*Methods and material:*

*Take up mechanically and collect in suitable containers for disposal.*

*Avoid dust formation.*

### 6.4. Reference to other Sections

*Protective clothing, see Section 8.*

*Dispose of contaminated material according to Section 13.*

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## 7. Handling and Storage

### 7.1. Precautions for Safe Handling

*Instructions on safe handling:*

*Avoid contact with eyes and skin.*

*Wear adequate protective clothing (see para. 8).*

*Avoid formation of dust.*

*Hygienic measures:*

*Avoid contact with skin, eyes and clothing. Do not inhale dust.*

*Do not eat or drink during work. Do not smoke.*

### 7.2. Conditions for Safe Storage, including any Incompatibilities

*Storage conditions:*

*Store in tightly sealed containers in a dry and cool room.*

*Store product without any contact to air.*

*Protect against humidity.*

*Keep product away from children.*

*Requirements for storage areas and containers:*

*Unsuitable container material: aluminium.*

*Information on fire and explosion protection:*

*No special measures necessary.*

*Do not store together with: acids, large amounts of paper, straw and nitro compounds.*

*Storage class:*

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13; Non combustible solids (TRGS 510)

*Further Information:*

**7.3. Specific End Use(s)**

*Further information:*

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**8. Exposure Controls/Personal Protection**

**8.1. Parameters to be Controlled**

*Parameters to be controlled (DE):*

TRGS 900

TLV: 1.25 mg/m<sup>3</sup> air-borne fraction (general dust limit)

TLV: 10 mg/m<sup>3</sup> inhalable fraction (general dust limit)

*Parameters to be controlled:*

*Derived No-Effect Level (DNEL):*

4 mg/m<sup>3</sup> (worker/consumer, inhalation, short-term exposure - local effects)

1 mg/m<sup>3</sup> (worker/consumer, inhalation, long-term exposure - local effects)

*Predicted No-Effect Concentration (PNEC):*

Fresh water: 0.49 mg/l

Sea water: 0.32 mg/l

Sewage treatment system (STP): 3 mg/l

Soil: 1080 mg/kg (dw)

*Additional Information:*

**8.2. Exposure Controls**

*Technical protective measures:*

No further measures, see Section 7.

*Personal Protection*

*General protective measures:*

Keep away from foodstuffs and drinks. Do not eat, drink or smoke during work. Wash hands before breaks and at the end of work. Avoid contact with eyes and skin.

*Respiratory protection:*

Required in case of insufficient ventilation (EN 143 or 149).

Respirator mask required if ventilation is insufficient. Wear filter respirator in case of short-term or low exposure, and wear a self-contained breathing apparatus in case of long-term or higher exposure.

*Hand protection:*

Protective gloves

*Protective glove material:*

Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material and dexterity. Always seek advice from glove suppliers.

*Eye protection:*

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*Tightly fitting safety goggles (EN 166).*

*Body protection:*

*Protective clothing.*

*Environmental precautions:*

*Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.*

*Avoid uncontrolled spills to water courses and drains (pH-increase).*

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## 9. Physical and Chemical Properties

### 9.1. Information on Basic Physical and Chemical Properties

<i>Form:</i>	<i>solid</i>
<i>Color:</i>	<i>white</i>
<i>Odor:</i>	<i>odorless</i>
<i>Odor threshold:</i>	<i>no information available</i>
<i>pH-Value:</i>	<i>12.4 (20°C)</i>
<i>Melting temperature:</i>	<i>&gt; 450°C</i>
<i>Boiling temperature:</i>	<i>not determined</i>
<i>Flash point:</i>	<i>not applicable</i>
<i>Evaporation rate:</i>	<i>not applicable</i>
<i>Flammability (solid, gas):</i>	<i>not flammable</i>
<i>Upper explosion limit:</i>	<i>no information available</i>
<i>Lower explosion limit:</i>	<i>no information available</i>
<i>Vapor pressure:</i>	<i>not applicable</i>
<i>Vapor density:</i>	<i>This product is a non-volatile solid.</i>
<i>Density:</i>	<i>3.41 g/cm<sup>3</sup></i>
<i>Solubility in water:</i>	<i>1.851 mg/l (20°C)</i>
<i>Coefficient of variation (n-Octanol/Water):</i>	<i>not applicable</i>

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*Auto-ignition temperature:*

> 400°C

*Decomposition temperature:*

not applicable

*Viscosity, dynamic:*

not applicable

*Explosive properties:*

Product does not present an explosion hazard.

*Oxidizing properties:*

not oxidizing

*Bulk density:*

200 - 800 kg/m<sup>3</sup> (20°C)

## 9.2. Further Information

*Solubility in solvents:*

*Viscosity, kinematic:*

*Burning class:*

*Solvent content:*

*Solid content:*

*Particle size:*

*Other information:*

*This product is hygroscopic.*

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## 10. Stability and Reactivity

### 10.1. Reactivity

*Calcium magnesium oxide reacts exothermically with water to form calcium magnesium hydroxide and calcium magnesium tetrahydroxide.*

### 10.2. Chemical Stability

*No decomposition if used according to specifications (dry storage).*

### 10.3. Possibility of Hazardous Reactions

*Exothermic reaction with acids.*

*Exothermic reaction with water.*

### 10.4. Conditions to Avoid

*Conditions to avoid:*

*Protect from humidity and air.*

*Thermal decomposition:*

### 10.5. Incompatible Materials

*Acids*

*Aluminium, brass.*

### 10.6. Hazardous Decomposition Products

*None*

### 10.7. Further Information

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## 11. Toxicological Information

### 11.1. Information on Hazard Classes as defined in Regulation (EC) No. 1272/2008

#### *Acute Toxicity*

*LD50, oral:* > 2000 mg/kg (rat, OECD 425)

*LD50, dermal:*  
No information available.

*LC50, inhalation:*  
No information available.

#### *Primary effects*

*Irritant effect on skin:*  
Causes skin irritation (rabbit; OECD 404). Risk of skin resorption.

*Irritant effect on eyes:*  
Strong irritant with the danger of severe eye injury (rabbit; OECD 405).

*Inhalation:*  
No information available.

*Ingestion:*  
No information available

*Sensitization:*  
No sensitizing effects known.

*Mutagenicity:*  
No mutagenic effects observed.

*Reproductive toxicity:*  
No negative effects.

*Carcinogenicity:*  
Not cancerogenic.

*Teratogenicity:*  
No information available.

*Specific target organ toxicity (STOT):*  
*Single exposure: From the data from studies in humans it can be concluded that calcium oxide and calcium hydroxide irritates the respiratory tract (SCOEL recommendation, Anonymus, 2008). By analogy, these results can be applied for the product itself.*  
*Repeated exposure:*  
*The UL (Tolerable Upper intake level) of the oral intake of calcium and magnesium has been evaluated to be 2500 mg/day, i.e. 36 mg/kg body weight/day (70 kg person) and 250 mg/day, i.e. 3.6 mg/kg body weight/day (70 kg person) for magnesium by the Scientific Center on Food (SCF).*  
*The toxicity of calcium magnesium oxide by skin contact is not to be considered to be relevant.*  
*The toxicity of calcium magnesium oxide by inhalation (local effect, mucous membrane irritation) has been considered to be 1 mg/m<sup>3</sup> (A-dust) by determining the 8 hour TWA. The primary local effect*

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*is the irritant effect on the mucous membrane).*

*Aspiration hazard*

*No risk of aspiration.*

## 11. 2. Information on other Hazards

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## 12. Ecological Information

### 12. 1. Aquatic Toxicity

*Fish toxicity:*

*Calcium hydroxide: LC50: 50.6 mg/l (96h; freshwater fish)*

*Calcium hydroxide: LC50: 457 mg/l (96h; seawater fish)*

*Daphnia toxicity:*

*Calcium hydroxide: EC50: 49.1 mg/l (48h; Daphnia magna)*

*Calcium hydroxide: LC50: 158 mg/l (96h; Daphnia magna)*

*Calcium hydroxide: NOEC: 32 mg/l (14d)*

*Bacteria toxicity:*

*At high concentrations, the product causes an increase of the pH value. This effect is used for the purification of sewage sludge.*

*Algae toxicity:*

*Calcium hydroxide: EC50: 184.57 mg/l (72h, freshwater algae)*

*Calcium hydroxide: NOEC: 48 mg/l (72h, freshwater algae)*

### 12. 2. Persistency and Degradability

*Inorganic substance. Biological degradability is not affected.*

### 12. 3. Bioaccumulation

*Not applicable for inorganic substances.*

### 12. 4. Mobility

*Calcium magnesium oxide reacts with water and carbon dioxide giving calcium dihydroxide and calcium carbonate. This is weakly soluble and not very mobile in soil.*

*Weak solubility and mobility.*

### 12. 5. Results of PBT- und vPvP Assessment

*Not applicable for inorganic substances.*

### 12. 6. Endocrine Disrupting Properties

*Not listed.*

### 12. 7. Other Adverse Effects

*Water hazard class:*

*Do not allow undiluted product or large quantities of it to reach ground water, waterways or sewage system.*

*Behaviour in sewage systems:*

*Further ecological effects:*

*Toxicity to soil dwelling organisms (Calcium dihydroxide):  
EC10/LC50/NOEC: 2000 mg/kg soil dw (soil macro-organisms);  
12000 mg/kg soil dw (soil micro-organisms)*

*Toxicity in organisms which live in the soil (Calcium dihydroxide).  
NOEC: 1080 mg/kg (21d)*

*Acute pH Effect. Although this product can be used to neutralize*

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*acidified water, water organisms can be damaged when 1 g/l is exceeded. The pH value > 12 is rapidly reduced due to dilution and carbonization.*

*AOX Value:*

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## 13. Disposal Considerations

### 13.1. Waste Treatment Methods

*Product:*

*Must not be disposed together with household garbage.*

*Do not let product enter water systems.*

*Unused residual quantities of the product: take up dry, store in labelled containers and if possible reuse as long as possible (in consideration of the maximum storage time).*

*European Waste Code (EWC):*

*101304 - Wastes from calcination and hydration of lime.*

*Uncleaned packaging:*

*Dispose of according to official local regulations.*

*Suggested cleaning agent: water. Detergent can be added if necessary.*

*Waste Code No.:*

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## 14. Transport Information

### 14.1. UN Number

*ADR, IMDG, IATA*

### 14.2. UN Proper Shipping Name

*ADR/RID:*

*No hazardous goods according to ADR / DOT (US) (land transportation).*

*IMDG/IATA:*

*Not hazardous goods*

### 14.3. Transport Hazard Classes

*ADR Class:*

*not applicable*

*Hazard no.:*

*Classification code:*

*Tunnel restriction code:*

*IMDG Class (sea):*

*not applicable*

*Hazard no.:*

*EmS No.:*

*IATA Class:*

*not applicable*

*Hazard no.:*

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## 14.4. Packaging Group

*ADR/RID:*

*not applicable*

*IMDG:*

*IATA:*

## 14.5. Environmental Hazards

*None*

## 14.6. Special Precautions for User

*Avoid formation of dust.*

## 14.7. Maritime Transport in Bulk according to IMO Instruments

*not applicable*

## 14.8. Further Information

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## 15. Regulatory Information

### 15.1. Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture

*Water hazard class:*

*1, slightly hazardous for water (according to the German Regulation AwSV)*

*Local regulations on chemical accidents:*

*Seveso III Directive: not applicable under Directive 2012/18/EC.*

*Employment restrictions:*

*Restriction and prohibition of application:*

*Technical instructions on air quality:*

### 15.2. Chemical Safety Assessment

*A Chemical Safety Assessment has been carried out for this product.*

### 15.3. Further Information

*Regulation (EC) 2037/2000 - Substances that Deplete the Ozone Layer: not regulated / not applicable*

*Regulation (EC) 850/2004 - Persistent Organic Pollutants and amending Directive 79/117/EEC: not regulated / not applicable*

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## 16. Other Information

*This product should be stored, handled and used in accordance with good hygiene practices and in conformity with any legal regulations. This information contained herein is based on the present state of knowledge and is intended to describe our product from the point of view of safety requirements. It should be therefore not be construed as guaranteeing specific properties.*