

# SAFETY DATA SHEET

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

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**Limak**

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

### 1.1 Product identifier

**Trade name/designation:**

Limak

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

**Use of the substance/mixture:**

Paste for electrodes

Industrial uses

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

**Manufacturer/Supplier:**

**Rheinfelden Carbon GmbH & Co KG**

Bukheinstr. 2

79618 Rheinfelden

GERMANY

**Telephone:** +49 7623 93 211

**Telefax:** +49 7623 93 548

**E-mail:** msds@rheinfelden-carbon.eu

**Website:** <http://www.rheinfelden-carbon.eu>

**E-mail (competent person):** msds@rheinfelden-carbon.eu

### 1.4 Emergency phone number

24h: +49 7623 93 375

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

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

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

### 2.2 Label elements

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

According to EC directives or the corresponding national regulations the product does not have to be labelled.

### 2.3 Other hazards

**Adverse human health effects and symptoms:**

If dust is generated: May cause eye irritation. May cause respiratory irritation.

The melted product can cause severe burns.

## SECTION 3: Composition / information on ingredients

### 3.2 Mixtures

**Description:**

Carbonaceous raw materials, Binding agent

**Additional information:**

The product does not contain substances of very high concern (SVHC)  $\geq 0,1$  %.

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### Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name Classification according to Regulation (EC) No. 1272/2008 [CLP]	Content
CAS No.: 64743-05-1 EC No.: 265-210-9	Coke, calcined	25 - 50 Wt %
CAS No.: 68187-59-7 EC No.: 269-111-1	Coal, anthracite, calcined	5 - 40 Wt %
CAS No.: 7782-42-5 EC No.: 231-955-3 REACH No.: 01-2119486977-12	Graphite	0 - 20 Wt %

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. If unconscious place in recovery position and seek medical advice. Do not leave affected person unattended.

#### Following inhalation:

Provide fresh air. In case of respiratory tract irritation, consult a physician.

#### In case of skin contact:

Rinse skin with water/shower. In case of skin irritation, consult a physician.

#### After eye contact:

Do not subject to friction. Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

#### After ingestion:

If swallowed, rinse mouth with water (only if the person is conscious). Get medical advice/attention if you feel unwell.

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

If dust is generated: May cause eye irritation. May cause respiratory irritation.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media:

Water spray jet, alcohol resistant foam, extinguishing powder, Carbon dioxide (CO<sub>2</sub>).

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

This material is combustible, but will not ignite readily. Burning produces heavy smoke. If dust is generated: Danger of dust explosion.

#### Hazardous combustion products:

In case of fire may be liberated: Pyrolysis products, toxic; Carbon oxides (CO<sub>x</sub>); Nitrogen oxides (NO<sub>x</sub>); Sulphur oxides (SO<sub>x</sub>)

### 5.3 Advice for firefighters

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

### 5.4 Additional information

Use water spray to keep fire-exposed containers cool.

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## SECTION 6: Accidental release measures

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

#### 6.1.1 For non-emergency personnel

**Personal precautions:**

Avoid dust formation. Do not breathe dust.

**Protective equipment:**

Wear breathing apparatus if exposed to vapours/dusts/aerosols. Wear eye/face protection.

#### 6.1.2 For emergency responders

**Personal protection equipment:**

Personal protection equipment: see section 8

### 6.2 Environmental precautions

No special environmental measures are necessary.

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

**For containment:**

Measures to prevent aerosol and dust generation: Dust binding agent. Do not use a dry brush as dust clouds or static can be created.

**For cleaning up:**

Collect spillage. Suitable material for taking up: Water (with cleaning agent)

**Other information:**

Take up mechanically, placing in appropriate containers for disposal.

### 6.4 Reference to other sections

Safe handling: see section 7.

Personal protection equipment: see section 8.

Disposal: see section 13.

### 6.5 Additional information

No data available.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

**Protective measures**

**Advices on safe handling:**

Avoid dust formation. Do not breathe dust. Wear personal protection equipment (refer to section 8).

**Fire prevent measures:**

If dust is generated: Remove all sources of ignition. Warning! Danger of dust explosion.

**Measures to prevent aerosol and dust generation:**

Dust should be exhausted directly at the point of origin. Use the following filter types for cleaning waste gases: High efficiency particulate air filter (HEPA filter).

**Advices on general occupational hygiene**

When using do not eat, drink or smoke. Wash hands and face before breaks and after work and take a shower if necessary.

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

**Technical measures and storage conditions:**

Store dry. Ensure adequate ventilation of the storage area.

Keep container tightly closed.

**Hints on storage assembly:**

Do not store together with: Oxidizing agent. Keep away from food, drink and animal feedingstuffs.

**Storage class:** 11 - Combustible solids that cannot be assigned to any of the above storage classes

### 7.3 Specific end use(s)

**Recommendation:**

Paste for electrodes.

Observe technical data sheet.

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## SECTION 8: Exposure controls / Personal protection

### 8.1 Control parameters

#### 8.1.1 Occupational exposure limit values

Limit value type (country)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
WEL (GB)	Graphite CAS No.: 7782-42-5	① 4 mg/m <sup>3</sup> ⑤ (respirable fraction)
WEL (GB)	Graphite CAS No.: 7782-42-5	① 10 mg/m <sup>3</sup> ⑤ (inhalable fraction)
WEL (GB)	dust, respirable fraction	① 4 mg/m <sup>3</sup> ⑤ Dust limit value respirable fraction
WEL (GB)	dust, inhalable fraction	① 10 mg/m <sup>3</sup> ⑤ Dust limit value inhalable fraction
MEL/OES (GB)	Coal dust, Anthracite	① 2 mg/m <sup>3</sup> ⑤ (Coal Dust, respirable fraction)

#### 8.1.2 Biological limit values

No data available.

#### 8.1.3 DNEL-/PNEC-values

No data available.

### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment. Measures to prevent aerosol and dust generation: Provide adequate ventilation as well as local exhaust at critical locations. Recommendation: If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means.

#### 8.2.2 Personal protection equipment



##### Eye/face protection:

Recommendation: Eye glasses with side protection (EN 166)

##### Skin protection:

Hand protection is not required

##### Respiratory protection:

If workplace limits are exceeded, a respiratory protection approved for this particular job must be worn. Particle filter device (EN 143). Filter type: P1. Observe the wear time limits as specified by the manufacturer.

##### Other protection measures:

Wear suitable protective clothing.

#### 8.2.3 Environmental exposure controls

No data available.

### 8.3 Additional information

No data available.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**Physical state:** solid

**Colour:** dark grey

**Odour:** like Mineral oil

#### Safety relevant basic data

Parameter		at	Method	Remark
pH	<i>not applicable</i>			
Melting point/freezing point	<i>not determined</i>			
Freezing point	<i>not determined</i>			
Initial boiling point and boiling range	<i>not determined</i>			
Decomposition temperature	> 400 °C			coking
Flash point	<i>not applicable</i>			
Evaporation rate	<i>not applicable</i>			
Ignition temperature	> 550 °C			
Upper/lower flammability or explosive limits	<i>not determined</i>			
Vapour pressure	<i>not applicable</i>			
Vapour density	<i>not applicable</i>			
Density	1.4 - 1.6 g/cm <sup>3</sup>	20 °C		
Bulk density	<i>not determined</i>			
Water solubility	insoluble	20 °C		
Partition coefficient: n-octanol/water	<i>not determined</i>			
Dynamic viscosity	<i>not applicable</i>			
Kinematic viscosity	<i>not applicable</i>			
Softening point	150 - 190 °C			

### 9.2 Other information

No data available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

This material is combustible, but will not ignite readily.

### 10.2 Chemical stability

The product is stable under storage at normal ambient temperatures.

### 10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions. The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

### 10.4 Conditions to avoid

Protect from moisture.

### 10.5 Incompatible materials

Oxidising agent, Acids, Alkali (lye), Water

### 10.6 Hazardous decomposition products

In case of fire may be liberated: Pyrolysis products, toxic; Carbon oxides (CO<sub>x</sub>); Nitrogen oxides (NO<sub>x</sub>); Sulphur oxides (SO<sub>x</sub>)

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute oral toxicity:

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

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### Acute dermal toxicity:

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

### Acute inhalation toxicity:

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

### Skin corrosion/irritation:

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

### Eye damage/irritation:

Based on available data, the classification criteria are not met.  
May cause eye irritation.

### Respiratory or skin sensitisation:

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

### Germ cell mutagenicity:

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

### Carcinogenicity:

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

### Reproductive toxicity:

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

### STOT-single exposure:

Based on available data, the classification criteria are not met.  
May cause respiratory irritation.

### STOT-repeated exposure:

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

### Aspiration hazard:

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

### Additional information:

No data available.

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Aquatic toxicity:

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

### 12.2 Persistence and degradability

CAS No.	Substance name	Biodegradation	Remark
68187-59-7	Coal, anthracite, calcined	No	
92062-05-0	Residues (petroleum), thermal cracked vacuum	No	
64743-05-1	Coke, calcined	No	
7782-42-5	Graphite	No	

#### Biodegradation:

According to experiences this product is inert and not degradable.

### 12.3 Bioaccumulative potential

#### Accumulation / Evaluation:

No indication of bioaccumulation potential.

### 12.4 Mobility in soil

No data available.

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### 12.5 Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
68187-59-7	Coal, anthracite, calcined	The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.
92062-05-0	Residues (petroleum), thermal cracked vacuum	The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.
64743-05-1	Coke, calcined	The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.
7782-42-5	Graphite	The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.

### 12.6 Other adverse effects

No data available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

May be reused without remediation.

#### 13.1.1 Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

##### Waste code product:

05 06 03 *	Other tars
------------	------------

\*: Evidence for disposal must be provided.

##### Remark:

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

### Waste treatment options

#### Appropriate disposal / Product:

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal. For recycling, contact manufacturer.

#### Appropriate disposal / Package:

Completely emptied packages can be recycled.

### 13.2 Additional information

Collect in closed and suitable containers for disposal.

## SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

### 14.1 UN-No.

not relevant

### 14.2 UN proper shipping name

not relevant

### 14.3 Transport hazard class(es)

not relevant

### 14.4 Packing group

not relevant

### 14.5 Environmental hazards

not relevant

### 14.6 Special precautions for user

not relevant

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### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

not relevant

#### Additional information:

No data available.

## SECTION 15: Regulatory information

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

#### 15.1.1 EU legislation

##### Authorisations:

No data available.

##### Restrictions on use:

No data available.

##### Other EU regulations:

Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work

#### 15.1.2 National regulations

No data available.

### 15.2 Chemical Safety Assessment

No data available.

### 15.3 Additional information

No data available.

## SECTION 16: Other information

### 16.1 Indication of changes

No data available.

### 16.2 Abbreviations and acronyms

See overview table at [www.euphrac.eu](http://www.euphrac.eu).

### 16.3 Key literature references and sources for data

No data available.

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

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

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

### 16.5 Relevant H- and EUH-phrases

No data available.

### 16.6 Training advice

No data available.

#### 16.6 Additional information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.