

## 425206, 425207 Red Lead, Minium in Alkyd Resin

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### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name: Red Lead, Minium in Alkyd Resin  
Product Number: 42520  
Application: Artists' and Restoration Material

Company: Kremer Pigmente GmbH & Co. KG  
Hauptstrasse 41-47, D - 88317 Aichstetten  
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### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Composition :  
Red Lead ground in Alkyde Resin

Chemical Characterization for Red Lead: Lead(II, IV)oxide Pb<sub>3</sub>O<sub>4</sub>, Lead Tetra Oxide O<sub>4</sub>Pb<sub>3</sub>  
C.I. Pigment Red 105

Hazardous Contents:

| CAS-Nr.   | EG-No.    | Index-No.    | Name             | %   | Hazard | R-Sentences          |
|-----------|-----------|--------------|------------------|-----|--------|----------------------|
| 1317-41-6 | 215-235-6 | 082-001-00-6 | Lead(II,IV)oxide | 100 | T, N   | 61-62-50/53-20/22-33 |

Chemical Characterization for Alkyd Resin:  
Alkyd resin dissolved in naphtha.

Hazardous Ingredients: Pet-  
roleum and coal-tar distillates:  
CAS-No.: 64742-82-1

### 3. HAZARDS IDENTIFICATION

Hazard Symbol and Name:  
T Reproduction toxicity  
N Environmental toxicity

Risk Phrases: R 61 May be hazardous / toxic for fetus.  
R 62 May cause reproduction defects.  
R 65 May cause lung damage if ingested  
R 50/53 Extremely toxic for water organisms, may have  
Long-term toxic effects in water  
R 20/22 Toxic if inhaled or/and ingested.  
R 33 Danger of cumulative effects

Classification according to todays Hazardous Goods Regulation (GefStoffV), as well as European Community Guideline (EU-Richtlinie) 67/548/EWG and 89/178/EWG.

### 4. FIRST AID MEASURES

After Skin Contact: Wash with soap and water  
After Eye Contact: Rinse open eye thoroughly under running water for 15 minutes. See ophthalmologist.  
Information for Medical Personnel: Lead contamination can be determined by blood and/or urine tests.

### 5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Dry extinguishing agent, foam, Carbon dioxide (CO<sub>2</sub>).

Special hazards caused by this product and its combustion products or developing fumes:

Lead Oxide may develop in case of a fire. Self-containing breathing apparatus.  
Special protective gear: In case of fire wear self-contained breathing apparatus.  
Additional Information: Dispose of waste caused by the fire and contaminated water according to local official regulations.

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### 6. ACCIDENTAL RELEASE MEASURES

Person-related safety measures: Wear protective gear. Keep unprotected persons away from hazard.  
Environmental protective measures: Prevent product from getting into drains/surface water/ groundwater.  
Methods of cleaning/absorption: Clean-up mechanically with damp or absorbing material.

### 7. HANDLING AND STORAGE

Handling: Store product in cool and well-ventilated area. Keep away from ignitable sources. Use adequate appliance to handle large containers or barrels. Keep electrical appliances and equipment well maintained.

Storage: In storage rooms at room temperature. Keep containers tightly closed. Do not store together with food stuff and animal feed.

Storage Classification: 13  
VbF-Classification: n.a.

### 8. EXPOSURE LIMITS AND PERSONAL PROTECTION

Additional information in reference to proper technical equipment:  
No additional information, see para 7.

Work place limits in reference to Red Lead powder:

| CAS-Nr.   | Product Name     | %   | Type              | Limit/Unit  |
|-----------|------------------|-----|-------------------|---|
| 1314-41-6 | Lead(II,IV)oxide | 100 | MAK<br>82/605/EWG | 0,1 mg Pb/m <sup>3</sup><br>0,15 mg Pg/m <sup>3</sup> |

The BAT-value of lead compounds must be considered (TRGS 900, BRD)

Personal Protection:

- Respiratory Protection: In case of inhalable dusts, use particle filter P 2 (for solid and fluid particles, DIN 3181)
- Hand Protection: gloves
- Eye Protection: Goggles

General Protective Measures and Hygiene Measures:

Keep away from food stuff, drinks and animal feed. Do not eat, drink, smoke or snuff during work. Wash hands and/or face before breaks and after work.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Form: paste  
Color: orange  
Odor: oil-like

Changes in physical state of READ MINIMUM:

Melting Point: 830°C Literature  
Flash Point: non-flammable  
Flammability: The product is non-flammable, may induce fire during high temperatures.  
Explosion Hazard: Product is non-explosive.  
Vapor Pressure: (20°C) n.a.  
Density: (20°C) 9.0 g/cm<sup>3</sup> DIN EN ISO 787-10  
Solubility in Water: (20°C) insoluble  
Solubility in 0.07 ml/l HCl: 100 % DIN EN ISO 6713  
pH-Value: (at 100 g/l H<sub>2</sub>O) (20°C) 7-8 DIN EN ISO 787-9

Changes in physical state of ALKYD RESIN:

Boiling point/Boiling range: approx. 142°C (1013 hPa)  
Flash point: > 36°C  
Ignition temperature: > 200°C  
Explosion limits: min.: 0.6 Vol%  
max.: 7 Vol%  
Vapor pressure: (50°C) 40 hPa  
(38°C) 2.3 kPa  
Density: (20°C) 1.05 g/cm<sup>3</sup>  
Viscosity (flow time) (20°C) 90 s DIN-Cup 4mm

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Solvent separation test: (20°C) 3 %  
Solvent content: 10 %  
Solids content: 90 %

All values are approximate values.

### 10. STABILITY AND REACTIVITY

Hazardous Combustion Products: No combustion if stored and handled properly.

### 11. TOXICOLOGICAL INFORMATION:

Acute Toxicity of RED MINIMUM:

- LD/LC<sub>50</sub>-Values:

| Component         | Kind   | Limit          | Species |
|-------------------|--------|----------------|---------|
| Lead (II,IV)oxide | orally | > 10.000 mg/kg | Rat     |

Primary Effects:

|       |                        |
|-------|------------------------|
| Skin: | Rabbit: non-irritating |
| Eye:  | Rabbit: non-irritating |

Additional toxicological information:

Further information: Lead chromate pigments are lead compounds which are not readily soluble. However, a certain amount of lead is dissolved by the hydrochloric acid contained by the gastric juice which can then be accumulated in the body. If the lead concentration remains increased over a longer period of time, this can cause disorders of the haemoglobin biosynthesis and irreversible nerve damage.

### 12. ECOLOGICAL INFORMATION

Elimination Details: Insoluble in water.

Environmental behavior: Product contains lead (Pb). Avoid environmental contamination. Special treatment is necessary before the product, its remains or waste waters are being disposed.

### 13. DISPOSAL INFORMATION

Product: Must be taken to a special waste dump site under consideration of official local regulations, e.g. deposit on a special dump site. No incineration.

**EAK / EC:** 060401 / 100405  
Consider recycling.

Contaminated Packaging Material:  
Treat contaminated packaging material like product itself.

**EAK / EC:** 150199D1 / 150104

### 14. TRANSPORT INFORMATION

Land transportation:

|                         |   |              |      |
|-------------------------|---|--------------|------|
| ADR/RID-GGVS/E-Class:   | 6.1   | UN No.:      | 2291 |
| Packing group:          | III   | Label:       | 6    |
| Classification code:    | T5  | Tunnel code: | E    |
| Correct technical name: | LEAD COMPOUND, SOLUBLE, N.O.S. (Lead(II,IV)oxide) |              |      |

Sea transportation:

|                         |  |          |         |
|-------------------------|--|----------|---------|
| IMDG/GGVSea-Class:      | 6.1  | UN No.:  | 2291    |
| Packing group:          | III  | Label:   | 6       |
| Subsidiary Risks:       | -  | EMS-No.: | F-A,S-A |
| Marine pollutant:       | P  |          |         |
| Correct technical name: | LEAD COMPOUND, SOLUBLE, N.O.S. (Lead (II,IV)oxide) |          |         |

Air transportation:

|                         |   |                   |      |
|-------------------------|---|-------------------|------|
| ICAO/IATA-Class:        | 6.1   | UN No.:           | 2291 |
| Packing group:          | III   | Subsidiary Risks: | -    |
| Correct technical name: | LEAD COMPOUND, SOLUBLE, N.O.S. (Lead(II,IV)oxide) |                   |      |

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### 15. REGULATORY INFORMATION

Labelling according to EC-Guidelines 67/548/EWG (21. Amendment) and 89/178/EC: The European Community considers lead compounds "reproduction toxicity, category 1".

Hazard Letter and Hazard Name of Product:

- T - reproduction toxicity
- N – environmentally hazardous

Hazardous Components for Labelling: Lead Compounds (Lead(II, IV)oxide)

Risk factors used for labelling:

R-Phrases:

- R 61: May be hazardous / toxic for fetus.
- R 62: May cause reproduction defects.
- R 65: May cause lung damage if ingested
- R 50/53: Extremely toxic for water organisms, may have Long-term toxic effects in water
- R 20/22: Toxic if inhaled or/and ingested.
- R 33: Danger of cumulative effects
- R 10: Flammable.
- R 43: May cause sensitization by skin contact.

S-Phrases:

- S 53: Avoid exposure – get instructions before handling
- S 45: Immediately get medical help after accident or discomfort (show product label if possible)
- S 20/21: When using do not eat, drink or smoke
- S 23: Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
- S 24: Avoid contact with skin.
- S 36/37: Wear suitable protective clothing and gloves.
- S 38: In case of insufficient ventilation, wear suitable respiratory equipment.
- S 51: Use only in well-ventilated areas.
- S 61: Avoid release to the environment. Refer to special instructions / Safety data sheets.

### PRODUCT IS FOR COMMERCIAL USE ONLY!

#### FURTHER INFORMATION TO RED MINIMUM:

**The product contains 90.8 % total lead.**

When labelling a chemical compound, a content of > 0.5% lead compound must be considered and labelled accordingly. Coating paint with a content of > 0.15 % total lead must contain the labelling „Contains lead. Do not use for objects which can be chewed on or licked by children“.

National Regulation:

Pregnancy Classification B (TRGS 505, TRGS 900, Germany)

Technical Classification:           Classif.   Content in %  
  III           90,8 (Pb)

Water Contamination Classification:  
  WGK 1, slightly water contaminating

### 16. FURTHER 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 therefore not be construed as guaranteeing specific properties.