

Kraft Micaceous Iron Oxide SG (according to IOS 10601)

Product: natural, lamellar micaceous iron oxide ( $\alpha\text{-Fe}_2\text{O}_3$ )

Colour: grey with metallic sheen

Grade (ISO 10601): 1

Type (ISO 10601): 2

Iron content ( $\text{Fe}_2\text{O}_3$ acc. to ISO 1248)	>85%
Density $\text{g/cm}^3$	4,7 – 4,9
Bulk density $\text{g/cm}^3$ (DIN 53466)	Ca. 1,4
Volatile matter (ISO 787/2)	<0,5 %
Loss on ignition at 800°C	<1%
Water-soluble matter (ISO 787/3)	<0,3 %
pH (ISO 787/9)	$9 \pm 1$
Oil absorption g (ISO 787/5)	19
Residue on 105 $\mu\text{m}$ sieve (DIN 53734)	Traces
Residue on 63 $\mu\text{m}$ sieve (DIN 53734)	5 – 15%

When viewed under an optical microscope by transmitted light, magnification x 200, the thin flake micaceous iron oxide particles appear as sharply defined red translucent platelets. When viewed under an electron microscope the pigment is seen as predominantly lamellar.

**KRAFT MIOXE – Data Sheet**  
**Micaceous Iron Oxide Kraft MIOXE AS (according to ISO 10601)**

Product: natural, lamellar micaceous iron oxide ( $\alpha\text{-Fe}_2\text{O}_3$ )

Colour: grey with metallic sheen

Grade (ISO 10601): 1

Type (ISO 10601): 1

Iron content (Fe <sub>2</sub> O <sub>3</sub> acc. to ISO 1248)	>85%
Density g/cm <sup>3</sup> (ISO 787/10)	4,7 – 4,9
Bulk density g/cm <sup>3</sup> (DIN 53466)	ca. 1,4
Volatile matter (ISO 787/2)	<0,5 %
Loss on ignition at 800°C	<1%
Water-soluble matter (ISO 787/3)	<0,3 %
pH (ISO 787/9)	9 ± 1
Oil absorption g/100 g (ISO 787/5)	19
Residue on 100 µm sieve (EN ISO 4610)	Traces
Residue on 63 µm sieve (EN ISO 4610)	max 5

When viewed under an optical microscope by transmitted light, magnification x 200, the thin flake micaceous iron oxide particles appear as sharply defined red translucent platelets. When viewed under an electron microscope the pigment is seen as predominantly lamellar.

**KRAFT MIOXE – Data Sheet**  
 Micaceous Iron Oxide Kraft MIOXE DB (according to ISO 10601)

Product: natural, lamellar micaceous iron oxide (alpha-Fe<sub>2</sub>O<sub>3</sub>)

Colour: grey with metallic sheen

Grade (ISO 10601): 1

Type (ISO 10601): 3

Iron content (Fe <sub>2</sub> O <sub>3</sub> acc. to ISO 1248)	>85%
Density g/cm <sup>3</sup>	4,7 – 4,9
Bulk density g/cm <sup>3</sup> (DIN 53466)	ca. 1,6
Volatile matter (ISO 787/2)	<0,5 %
Loss on ignition at 800°C	<1%
Water-soluble matter (ISO 787/3)	<0,3 %
pH (ISO 787/9)	9 ± 1
Oil absorption g/100 g (ISO 787/5)	16
Residue on 105 µm sieve (DIN 53734)	Traces
Residue on 63 µm sieve (DIN 53734)	25 – 35%

When viewed under an optical microscope by transmitted light, magnification x 200, the thin flake micaceous iron oxide particles appear as sharply defined red translucent platelets. When viewed under an electron microscope the pigment is seen as predominantly lamellar.

KRAFT MIOXE – Data Sheet  
Iron Oxide Kraft MIOXE LF (according to ISO 1248/1974)

Product: natural iron oxide  
Colour: reddish-grey to reddish-brown powder  
Group: red  
Category: C  
Type: III  
Grade: 2  
Class: b

Iron content (as Fe <sub>2</sub> O <sub>3</sub> acc. to ISO 1248)	>55%
Volatile matter (ISO 787/2)	<0,5 %
Matter soluble in water (ISO 787/3)	<2%
Acidity, alkalinity (ml 0,1 nsol.)(ISO 787/4)	<20
Density g/cm <sup>3</sup> (ISO 787/10)	ca. 4,0
Residue on 105 µm sieve (EN ISO 4610)	Traces 140 Mesh/102 Micron
Residue on 63 µm sieve (EN ISO 4610)	max 0,1% 230 Mesh/64 Micron



## Kraft MIOXE SDF

Natural Laminated Iron Oxide (Micaceous)  
Grey with Metallic Gloss  
Grade (ISO 10601) Grade I  
Type (ISO 10601) Type I

Iron Content: 85% or greater  
Density: 4.8  
Bulk Density: 1.4  
Loss on drying: less than 0.5% Max  
pH Value: 9 ( $\pm 1$ )  
Oil absorption: 19 ( $\pm 1$ )  
Thru 74 $\mu$ m traces  
Thru 44  $\mu$ m 15% max  
Thru 32  $\mu$ m 30



Material Safety Data Sheet according to 91/155/EEC (incl. EC-Directive  
2001/58/EEC)

1. Identification of the substance/preparation and the company

Micaceous iron oxide trade name: Kraft MIOXE AS, Kraft MIOXE SG, M I O X · D 13, M I O X  
S F

Use of the substance: application in anticorrosive and decorative paints, application in break  
linings, plastics, rubber and ceramic industry

2. Composition/information on ingredients

Micaceous iron oxide  $\text{Fe}_2\text{O}_3$   
CAS No: 1317-60-8  
EINECS No: 215 – 275-4  
INDEX R-phrases: /

3. Hazards identification

Hazard warning not required. These products do not require labeling.

4. First-aid measures

In case of eye contact, rinse with plenty of water. If irritation of the eyes persists, consult a  
doctor (ophthalmologist).

5. Fire-fighting measures

Extinguishing media: No restriction in fire situations.

6. Accidental release measures

Methods for cleaning up/taking up: Collect mechanically.

7. Handling and storage

Store in a cool, dry place.  
No special measures required.

8. Exposure controls/Personal protection for exposure controls see Chapter 15.

Eye protection: goggles  
When handling, observe the usual precautionary measures for dust-forming products.

## 9. Physical and chemical properties

		Tested in accordance with
Form	Granules	
Colour	Grey with metallic sheen	
Odour	Odourless	
Melting Point	>1000°C	
Density	Approx 4,8 g/cm <sup>3</sup> at 20°C	ISO 787/10
Bulk Density	Approx 1,5 g/cm <sup>3</sup> (± 0,1) at 20°C	DIN 53466
Vapour pressure	Not applicable	
Viscosity	Not applicable	
Solubility in water	Insoluble	
pH value	9 ± 1	ISO 787/9
Flash point	Not applicable	
Ignition temperature	Not applicable	
Explosive limits	Not applicable	

## 10. Stability and reactivity

Thermal decomposition: No decomposition when used as directed.

Hazardous decomposition products: Not applicable

Hazardous reaction: No hazardous reactions observed.

## 11. Toxicological information

According to the present state of knowledge MIOX pigments are physiologically harm- less; under extreme conditions, however, mechanical action arising from eye contact (action of dust) may cause slight temporary irritation of the mucosa.

## 12. Ecological information

Water pollution class (WGK): 0 - not generally hazardous to water

WGK = Classification in accordance with the German Water Resources Act

## 13. Disposal considerations

May be disposed of in approved landfills provided local regulations are observed. Return large quantities to manufacturer.

## 14. Transport information

GGVSee/IMDG Code:-- UN No.:-- MFAG: --EmS:-- PG: -- MPO: --

GGVE/GGVS: Class-- No.:-- RID/ADR: Class-- No.:--



Warning sign: Hazard no. 000 Substance no. 0000

ADNR: Class -- No.: -- Cat -- ICAO/IATA-DGR: not registr.

Declaration for land shipment: --

Declaration for sea shipment: --

Declaration for shipment by air: --

Other information:

Not dangerous cargo. Keep separated from foodstuffs.

#### 15. Regulatory information

No labeling is required in accordance with EEC directives. MAK value (fine dust): 6 mg/m<sup>3</sup>

#### 16. Other information

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.