

Safety Data Sheet

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



48100 Iron Oxide Red 110 M, light

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Revised edition: 14.02.2023

Version: 5.0

Printed: 04.10.2023

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

1.1. Product Identifier

Product Name: Iron Oxide Red 110 M, light

Article No.: 48100

UFI: --

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

Identified uses:
Coloring agent (pigment and dyes), inorganic.

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

E-Mail: 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)

This product does not require classification and labelling as hazardous according to CLP/GHS.

Possible Environmental Effects:

2.2. Label Elements

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

No classification required according to the CLP/GHS guidelines.

Hazard designation:

Not applicable.

Signal word:

Hazard designation:

Safety designation:

Hazardous components for labelling:

2.3. Other Hazards

3. Composition/Information on Ingredients

Substance

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3.1.

3.2. Mixture

Chemical Characterization: Fe₂O₃. Pigment Red 101, C.I. 77491

Information on Components / Hazardous Ingredients:

Diiron trioxide (Fe ₂ O ₃); REACH Reg. No. 01-2119457614-35-0000	100 %	CAS-Nr: 1309-37-1 EINECS-Nr: 215-168-1 EC-Nr:
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Additional information:

Diiron trioxide:
Particle characteristics:
Particle size distribution: d10 = 20 - 50 nm; d50 = 70 - 100 nm; d90 = 140 - 200 nm
Form: Spheres; Specific surface area: 14 m²/cm³ ± 6 m³/cm³ (BET); Specific treatment: no
This product/this mixture contains nanoforms.

4. First Aid Measures

4.1. Description of the First Aid Measures

General information:

Consult physician.
Do not leave affected persons unattended.
Take person away from hazardous area.
First aiders: mind self-protection!

After inhalation:

Supply fresh air and keep patient calm.
If breathing is difficult call a physician.
Keep the airways open. Unfasten tight garments (collar, tie, belt).

After skin contact:

Remove contaminated clothing and wash before reuse.
Wash off with plenty of water.
Continue to rinse for at least 10 minutes.
If symptoms persist, consult a physician.

After eye contact:

Remove contact lens. Rinse open eyes with plenty of water (10-15 min). Should irritation continue, seek medical advice.

After ingestion:

Rinse mouth with water. Consult a physician in case of complaints.
Do not induce vomiting unless directed to do so by medical personnel.
In case of unconsciousness, store, respectively transport in stable side position.
Immediately get medical help.

4.2. Most important Symptoms and Effects, both Acute and Delayed

Symptoms:

No further information available.

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Effects:

4.3. Indication of any Immediate Medical Attention and special Treatment needed

Treatment:

Treat symptomatically.

5. Fire-Fighting Measures

5.1. Extinguishing Media

Suitable extinguishing media:

Water mist, extinguishing powder, foam, carbon dioxide.

Unsuitable extinguishing media:

None known.

5.2. Special Hazards arising from the Substance or Mixture

Special hazards:

No special hazards.

Product is not flammable.

5.3. Advice for Firefighters

Protective equipment:

Usual measures for chemical fires.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Further information:

Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Personal precautions:

Avoid formation of dust, wear protective clothing. Keep spectators away.

Ensure adequate ventilation.

6.2. Environmental Precautions

Environmental precautions:

Prevent contamination of soils, drains and surface water.

In case of Contact local authorities if product pollutes soil or vegetation.

6.3. Methods and Material for Containment and Cleaning Up

Methods and material:

Clean up mechanically. Transfer liquids and solid diking material to separate suitable containers for recovery or disposal.

6.4. Reference to other Sections

Protective clothing, see Section 8.

Dispose of contaminated material according to Section 13.

7. Handling and Storage

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7.1. Precautions for Safe Handling

Instructions on safe handling:

*Wear adequate protective clothing (see para. 8).
Avoid contact with eyes and skin.
Provide good ventilation and/or exhaust at the workplace. Ensure adequate ventilation. Handle and open container with care.*

Hygienic measures:

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 well ventilated location.
Protect product from direct sunlight.*

Requirements for storage areas and containers:

*Preferably store in the original container
Keep containers upright and protect from damage.
Close open containers with care and store in an upright position to avoid spilling.*

Information on fire and explosion protection:

Electrical installations / working materials must comply with the technological safety standards.

Storage class:

13; Non combustible solids (TRGS 510)

Further Information:

7.3. Specific End Use(s)

Further information:

8. Exposure Controls/Personal Protection

8.1. Parameters to be Controlled

Parameters to be controlled (DE):

Does not contain any components with workplace limit values.

Parameters to be controlled:

Derived No-Effect Level (DNEL):

No values available.

Predicted No-Effect Concentration (PNEC):

No values available.

Additional Information:

8.2. Exposure Controls

Technical protective measures:

*Provide adequate ventilation.
Provide adequate ventilation/exhaust system.*

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Personal Protection

General protective measures:

*Remove contaminated clothing. Wash hands after work.
Wash contaminated clothes before reuse.
Keep away from foodstuffs, beverages and feed.*

Respiratory protection:

Dust mask recommended when very dusty (with particle filter P1).

Hand protection:

Protective gloves

Protective glove material:

Leather gloves (< 60 min)

Eye protection:

Safety glasses with protective shields (EN 166).

Body protection:

Protective clothing.

Environmental precautions:

Avoid contamination of sewage system, open water ways and ground water.

9. Physical and Chemical Properties

9.1. Information on Basic Physical and Chemical Properties

<i>Form:</i>	<i>powder</i>
<i>Color:</i>	<i>red</i>
<i>Odor:</i>	<i>odorless</i>
<i>Odor threshold:</i>	<i>no information available</i>
<i>pH-Value:</i>	<i>4 - 8 (5 %)</i>
<i>Melting temperature:</i>	<i>> 1000°C (> 1832°F)</i>
<i>Boiling temperature:</i>	<i>not applicable</i>
<i>Flash point:</i>	<i>not applicable</i>
<i>Evaporation rate:</i>	<i>not applicable</i>
<i>Flammability (solid, gas):</i>	<i>not available</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>	

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not applicable

Vapor density:

This product is a non-volatile solid.

Density:

5 g/cm³ (20°C)

Solubility in water:

insoluble

Coefficient of variation (n-Octanol/Water):

no information available

Auto-ignition temperature:

not applicable

Decomposition temperature:

not determined

Viscosity, dynamic:

not applicable

Explosive properties:

not applicable

Oxidizing properties:

no information available

Bulk density:

300 - 1000 kg/m³ (20°C)

9.2. Further Information

Solubility in solvents:

Viscosity, kinematic:

Burning class:

Solvent content:

Solid content:

Particle size:

Partikel characteristics: This substance/ mixture contains nanoforms (see Section 3).

Other information:

No further information.

10. Stability and Reactivity

10.1. Reactivity

No information available.

10.2. Chemical Stability

The product is stable.

10.3. Possibility of Hazardous Reactions

None if handled and stored according to specifications.

10.4. Conditions to Avoid

Conditions to avoid:

No information available.

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Thermal decomposition:

10.5. Incompatible Materials

No information available.

10.6. Hazardous Decomposition Products

None if stored and handled according to specifications.

10.7. Further Information

11. Toxicological Information

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

Acute Toxicity

LD50, oral: > 5000 mg/kg (rat)

LD50, dermal:

No information available.

LC50, inhalation:

No information available.

Primary effects

Irritant effect on skin:

Non irritating

Irritant effect on eyes:

Non-irritating to eyes

Inhalation:

No irritant effect known.

Ingestion:

No information available

Sensitization:

Non sensitizing.

Mutagenicity:

No relevant data found.

Reproductive toxicity:

No relevant data found.

Carcinogenicity:

No relevant data found.

Teratogenicity:

No information available.

Specific target organ toxicity (STOT):

Single exposure: Not classified based on available information.

Repeated exposure: Not classified based on available information.

Aspiration hazard:

No information available.

11.2. Information on other Hazards

Endocrine Disrupting Properties:

This substance/mixture does not contain any components with

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endocrine disrupting properties in a percentage of 0.1 or greater, according to Article 57(f) of the REACH Regulation (EC) No. 1907/2006 or the Delegated Regulation (EC) 2017/2100 or the Delegated Regulation (EC) 2018/605.

12. Ecological Information

12.1. Aquatic Toxicity

Fish toxicity:

LC50: > 1000 mg/l (48h, Leuciscus idus; OECD 203)

Daphnia toxicity:

EC50: > 10000 mg/l (48h, Daphnia magna)

Bacteria toxicity:

No data available.

Algae toxicity:

No information available.

12.2. Persistency and Degradability

No information available.

12.3. Bioaccumulation

No information available.

12.4. Mobility

No information available.

12.5. Results of PBT- und vPvP Assessment

On the basis of available data, the product does not contain any PBT or vPvB substances in percentage greater than 0.1 %.

12.6. Endocrine Disrupting Properties

This substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated Regulation (EU) No. 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1 % or higher.

12.7. Other Adverse Effects

Water hazard class:

Not hazardous.

Behaviour in sewage systems:

Further ecological effects:

No special effects or hazards known.

AOX Value:

13. Disposal Considerations

13.1. Waste Treatment Methods

Product:

If product cannot be reused or recycled, it has to be disposed of according to current local regulations.

European Waste Code (EWC):

Uncleaned packaging:

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Non contaminated packaging can either be recycled or utilized for energy (incineration).

Waste Code No.:

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.:

14.4. Packaging Group

ADR/RID:

not applicable

IMDG:

IATA:

14.5. Environmental Hazards

None

14.6. Special Precautions for User

Not classified as a dangerous good under transport regulations.

14.7. Maritime Transport in Bulk according to IMO Instruments

not applicable

14.8. Further Information

Protect against moisture.

Do not store together with foodstuffs.

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15. Regulatory Information

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

Water hazard class:

0, not hazardous (German Regulation, Assessment by list)

Local regulations on chemical accidents:

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

Employment restrictions:

Restriction and prohibition of application:

EC. REACH, Section XVII, Restrictions on the Manufacture, Placing on the Market and Use of Certain Dangerous Substances, Preparations and Articles: not applicable

Technical instructions on air quality:

15.2. Chemical Safety Assessment

A Chemical Safety Assessment is not necessary for this product.

15.3. Further Information

Regulation (EU) 2019/1021 - Persistent organic pollutants: not regulated / not applicable

Regulation (EC) 1005/2009 - Substances that Deplete the Ozone Layer: not regulated / not applicable

Regulation (EC) 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors: not forbidden and/or not restricted

Regulation (EC) 649/2012 concerning the export and import of dangerous chemicals: Not applicable

International Chemical Weapons Convention (CWC), list of the toxic chemicals and toxic chemical precursors: not forbidden and/or restricted

EC. REACH, Annex XIV, Candidate List of Substances of very High Concern (SVHC): not regulated / not applicable

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.