

Safety Data Sheet

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



48250 Iron Oxide Red 222, dark

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Revised edition: 05.03.2021

Version: 2

Printed: 04.10.2023

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

1.1. Product Identifier

Product Name: Iron Oxide Red 222, dark

Article No.: 48250

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

Dust may be produced when working with this material, which can cause a mechanical irritation of eyes, nose and respiratory tract.

Composition/Information on Ingredients

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3.1. Substance

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:

4. First Aid Measures

4.1. Description of the First Aid Measures

General information:

Take affected persons out into the fresh air.

After inhalation:

Supply fresh air and keep patient calm.

If breathing is difficult call a physician.

Keep respiratory tract clear.

In case of unconsciousness place patient stable in side position for transportation.

After skin contact:

Wash off with water.

After eye contact:

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

After ingestion:

No special measures required.

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

Symptoms:

No further information available.

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:

Foam, carbon dioxide (CO₂), extinguishing powder, water spray.

Unsuitable extinguishing media:

None known.

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5.2. Special Hazards arising from the Substance or Mixture

Special hazards:

No special hazards.

5.3. Advice for Firefighters

Protective equipment:

Wear self-contained respiratory protective device and full protective gear.

Further information:

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.
Floor may be slippery; use care to avoid falling.*

6.2. Environmental Precautions

Environmental precautions:

Prevent contamination of soils, drains and surface water.

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

*In case of emergency, see Section 1.
Protective clothing, see Section 8.
Dispose of contaminated material according to Section 13.*

7. Handling and Storage

7.1. Precautions for Safe Handling

Instructions on safe handling:

No special measures required.

Hygienic measures:

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

7.2. Conditions for Safe Storage, including any Incompatibilities

Storage conditions:

Store dry and in the original tightly sealed containers.

Requirements for storage areas and containers:

Keep container tightly closed.

Information on fire and explosion protection:

No special measures necessary.

Storage class:

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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):

none known

Parameters to be controlled:

Derived No-Effect Level (DNEL):

10 mg/m³ (worker, inhalation, long and short-term exposure - systemic and local effects)

Predicted No-Effect Concentration (PNEC):

Additional Information:

8.2. Exposure Controls

Technical protective measures:

*Ensure adequate ventilation, especially in confined areas.
Facilities storing or utilizing this material should be equipped with an eyewash and shower facility.*

Personal Protection

General protective measures:

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

Respiratory protection:

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

Hand protection:

Protective gloves made of leather.

Protective glove material:

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

Form: powder

Color: red

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Odor:	odorless
Odor threshold:	no information available
pH-Value:	4 - 8 (5 %)
Melting temperature:	1565°C (2849°F)
Boiling temperature:	not applicable
Flash point:	not applicable
Evaporation rate:	This product is a non-volatile solid.
Flammability (solid, gas):	not applicable
Upper explosion limit:	no information available
Lower explosion limit:	no information available
Vapor pressure:	not applicable
Vapor density:	This product is a non-volatile solid.
Density:	5.2 kg/l (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:	Product does not present an explosion hazard.
Oxidizing properties:	no information available
Bulk density:	

9.2. Further Information

Solubility in solvents:

Viscosity, kinematic:

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Burning class:

Solvent content:

Solid content:

Particle size:

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.

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:

> 210 mg/m³ (14d; rat)

Primary effects

Irritant effect on skin:

Non irritating (4h, rabbit; OECD 404)

Irritant effect on eyes:

Non-irritating to eyes (24h, rabbit; OECD 405)

Inhalation:

No information available.

Ingestion:

No information available

Sensitization:

Non sensitizing (guinea pig; OECD 406).

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Mutagenicity:

In vitro genetic-toxicity: Ames-Test negative (OECD 471)
In vitro Mammalian Cell Gene Mutation Test (OECD 476): negative
In vitro Mammalian Chromosomal Aberration Test (OECD 473): negative

Reproductive toxicity:

No relevant data found.

Carcinogenicity:

Negative, intraperitoneal (600 mg/kg, rat, 914 days; 3 injections / 200 mg/kg in 8 weeks)

Teratogenicity:

No information available.

Specific target organ toxicity (STOT):

Single exposure: no information available.
Repeated exposure: NOAEL (inhalation): 10.1 mg/m³ (28d, rat; OECD 412)

Aspiration hazard:

No information available.

11.2. Information on other Hazards

Endocrine Disrupting Properties: no information available.

12. Ecological Information

12.1. Aquatic Toxicity

Fe₂O₃

Fish toxicity:

LC₀: 50000 mg/l (96h, Danio rerio)

Daphnia toxicity:

EC₅₀: > 100 mg/l (48h, Daphnia magna; OECD 202)

Bacteria toxicity:

EC₅₀: > 10000 mg/l (3h, active sludge)

Algae toxicity:

No information available.

12.2. Persistency and Degradability

Methods for the evaluation of the biological degradability are not applicable for inorganic substances.

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
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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:

No data available.

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:

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.:

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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

Do not store together with foodstuffs.

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 (EC) 850/2004 - Persistent Organic Pollutants and amending Directive 79/117/EEC: not regulated / not applicable
Regulation (EC) 1005/2009 - Substances that Deplete the Ozone Layer: not regulated / not applicable
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.