

## SAFETY DATA SHEET

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Handelsname: Iron Oxide Reddish Brown

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Artikel-Nr. 1735 000, 1735 120

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

1735 000, 1735 120 Iron Oxide Reddish Brown

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/preparation**

Colourant

**1.3. Details of the supplier of the safety data sheet****Address**

Deffner & Johann GmbH  
Mühläckerstraße 13, D-97520 Röthlein, Germany  
Tel. +49 9723 9350-0, Fax +49 9723 9350-25  
www.deffner-johann.de  
E-Mail info@deffner-johann.de

**1.4. Emergency telephone number**

Tel. +49 9723 9350-0 (Mo. - Fr.: 8:00 - 15:00 Uhr)

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

Voluntary product information following the Safety Data Sheet format  
This product is not classified hazardous in accordance with Regulation (EC) No 1272/2008.

**2.2. Label elements****Labelling according to regulation (EC) No 1272/2008**

The product does not require a hazard warning label in accordance with Regulation (EC) No 1272/2008.

**2.3. Other hazards**

Dust loading

**SECTION 3: Composition/information on ingredients****Chemical characterization**

pigment mixture, inorganic construction

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

In case of persistent symptoms consult doctor.

**After inhalation**

Remove the casualty into fresh air and keep him calm. In the event of symptoms take medical treatment.

**After skin contact**

Wash off immediately with soap and water. Consult a doctor if skin irritation persists.

**After eye contact**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Seek medical advice immediately.

**After ingestion**

Rinse mouth thoroughly with water. Call in a physician immediately and show him the Safety Data Sheet.

**Adhere to personal protective measures when giving first aid**

First aider: Pay attention to self-protection!

**4.2. Most important symptoms and effects, both acute and delayed**

Until now no symptoms known so far.

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**4.3. Indication of any immediate medical attention and special treatment needed****Hints for the physician / treatment**

Treat symptomatically

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Water spray jet, Foam, Carbon dioxide, Dry powder

**Non suitable extinguishing media**

Full water jet

**5.2. Special hazards arising from the substance or mixture**

Metal oxides

**5.3. Advice for firefighters****Special protective equipment for fire-fighting**

Use self-contained breathing apparatus. Wear full protective suit.

**Other information**

Fire residues and contaminated fire-fighting water must be disposed of in accordance with the local regulations.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Avoid dust formation. Do not inhale dust. Use breathing apparatus if exposed to vapours/dust/aerosol. Ensure adequate ventilation. High risk of slipping due to leakage/spillage of product. Use personal protective clothing. Refer to protective measures listed in Sections 7 and 8. Remove persons to safety.

**6.2. Environmental precautions**

Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil. Retain and dispose of contaminated wash water.

**6.3. Methods and material for containment and cleaning up**

Avoid raising dust. Pick up mechanically. When picked up, treat material as prescribed under Section 13 "Disposal".

**6.4. Reference to other sections**

Information regarding Safe handling, see Section 7. Information regarding personal protective measures, see Section 8. Information regarding waste disposal, see Section 13.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Provide exhaust ventilation if dust is formed. Avoid the formation and deposition of dust. Handle and open container with care. Provide suitable exhaust ventilation at the processing machines. Ensure adequate ventilation. Use breathing apparatus when transferring large quantities without exhaust ventilation facilities. If workplace limits are exceeded, a respiratory protection approved for this particular job must be worn. Observe the usual precautions for handling chemicals.

**Advice on protection against fire and explosion**

No special measures required.

**7.2. Conditions for safe storage, including any incompatibilities****Hints on storage assembly**

Do not store together with foodstuffs.

**Storage class according to TRGS 510**Storage class according to TRGS 13  
510

Non- combustible solids

**Further information on storage conditions**

Keep container tightly closed and dry in a cool, well-ventilated place. Protect from direct sunlight. Protect from extreme heat and cold.

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**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Other information**

The national general dust limit must be observed.  
TRGS 900: Observe the general dust threshold.

**Derived No/Minimal Effect Levels (DNEL/DMEL)****Diiron trioxide**

Reference substance	Diiron trioxide	
Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	10	mg/m <sup>3</sup>
Source	Literature value	

	Diiron trioxide	
Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	10	mg/m <sup>3</sup>
Source	Literature value	

**Triiron tetraoxide**

Reference substance	Triiron tetraoxide	
Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	10	mg/m <sup>3</sup>
Source	Literature value	

	Triiron tetraoxide	
Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	10	mg/m <sup>3</sup>
Source	Literature value	

**8.2. Exposure controls****General protective and hygiene measures**

Do not inhale dust/fumes/aerosols. Avoid contact with skin and eyes. Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Wash hands before breaks and after work. Use barrier skin cream. Observe the usual precautions for handling chemicals. Take off immediately all contaminated clothing.

**Respiratory protection**

If workplace limits are exceeded, a respiratory protection approved for this particular job must be worn. Particle filter half mask, filter P1; Use breathing apparatus in dust-laden atmosphere.

**Hand protection**

Protective gloves

Observe the information of the glove manufacturers on permeability and breakthrough times and other workplace requirements.

**Eye protection**

Safety glasses with side protection shield

**Body protection**

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Clothing as usual in the chemical industry.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

<b>Form</b>	Powder
<b>Colour</b>	see tradename
<b>Odour</b>	characteristic
<b>Odour threshold</b>	
Remarks	not determined
<b>pH value</b>	
Value	5 to 8
Concentration/H <sub>2</sub> O	5 %
Source	Literature value
<b>Melting point</b>	
Value	> 1000 °C
Method	Value taken from the literature
<b>Freezing point</b>	
Remarks	not determined
<b>Initial boiling point and boiling range</b>	
Remarks	not determined
<b>Flash point</b>	
Remarks	Not applicable
<b>Evaporation rate (ether = 1) :</b>	
Remarks	not determined
<b>Flammability (solid, gas)</b>	
not determined	
<b>Upper/lower flammability or explosive limits</b>	
Remarks	not determined
<b>Vapour pressure</b>	
Remarks	not determined
<b>Vapour density</b>	
Remarks	not determined
<b>Density</b>	
Value	4,9 g/cm <sup>3</sup>
Temperature	20 °C
Source	Literature value
<b>Solubility in water</b>	
Remarks	insoluble
Source	Literature value
<b>Solubility(ies)</b>	
Remarks	not determined
<b>Partition coefficient: n-octanol/water</b>	
Remarks	not determined
<b>Ignition temperature</b>	
Remarks	not determined
<b>Decomposition temperature</b>	
Remarks	not determined
<b>Viscosity</b>	
Remarks	Not applicable
<b>Explosive properties</b>	
evaluation	not determined
<b>Oxidising properties</b>	
Remarks	not determined
<b>9.2. Other information</b>	
<b>Other information</b>	
None known	

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**SECTION 10: Stability and reactivity****10.1. Reactivity**

No hazardous reactions when stored and handled according to prescribed instructions.

**10.2. Chemical stability**

No hazardous reactions known.

**10.3. Possibility of hazardous reactions**

Stable under recommended storage and handling conditions (see section 7).

**10.4. Conditions to avoid**

At temperatures above 80 °C the product may become unstable and oxidise. This generates additional heat which, under unfavourable conditions, may result in the combustion of flammable materials. The product should therefore not be stored near heat sources.

**Decomposition temperature**

Remarks not determined

**10.5. Incompatible materials**

No hazardous reactions when stored and handled according to prescribed instructions.

**10.6. Hazardous decomposition products**

No hazardous reactions when stored and handled according to prescribed instructions.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Acute oral toxicity**

Species	rat	
LD50	> 5000	mg/kg
Source	Literature value	

**Skin corrosion/irritation**

evaluation	non-irritant
Remarks	Test conducted with a similar formulation.
Source	Literature value
Remarks	Frequent persistent contact with the skin can cause skin irritation.

**Serious eye damage/irritation**

evaluation	non-irritant
Remarks	Test conducted with a similar formulation.
Source	Literature value
Remarks	Contact of the product with skin or eyes may cause irritation.

**Sensitization**

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

**Subacute, subchronic, chronic toxicity**

Remarks	not determined
Remarks	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

**Mutagenicity**

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

**Reproductive toxicity**

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

**Carcinogenicity**

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

**Specific Target Organ Toxicity (STOT)**

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

**SECTION 12: Ecological information****12.1. Toxicity****Fish toxicity**

Species	golden orfe (Leuciscus idus)	
LC50	> 10000	mg/l

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Duration of exposure 96 h  
 Remarks Test conducted with a similar formulation.  
 Source Literature value

**Daphnia toxicity**

Remarks No data available

**Bacteria toxicity**

Remarks No data available

**12.2. Persistence and degradability****General information**

No data available

**12.3. Bioaccumulative potential****General information**

No data available

**Partition coefficient: n-octanol/water**

Remarks not determined

**12.4. Mobility in soil****General information**

No data available

**12.5. Results of PBT and vPvB assessment****Evaluation of persistence and bioaccumulation potential**

The product does not contain components in concentrations of 0.1% or higher, which are either persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).

**12.6. Other adverse effects****General information**

No data available

**General information / ecology**

Ecological data are not available. Do not discharge product unmonitored into the environment.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations for the product**

Product should be taken to a suitable and authorized waste disposal site in accordance with relevant regulations and if necessary after consultation with the waste disposal operator and/or the competent Authorities.

**Disposal recommendations for packaging**

Packaging that cannot be cleaned should be disposed off as product waste.  
 Uncontaminated packaging may be taken for recycling.

**SECTION 14: Transport information****Land transport ADR/RID**

The product does not constitute a hazardous substance in land transport.

**Marine transport IMDG/GGVSee**

The product does not constitute a hazardous substance in sea transport.

**Air transport ICAO/IATA**

The product does not constitute a hazardous substance in air transport.

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Water Hazard Class (Germany)**

Water Hazard Class (Germany) Not water hazardous  
 Remarks Derivation of WGK according to Annex 1 No. 5.2 AwSV

**Other information**

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All components are contained in the TSCA inventory or exempted.

**15.2. Chemical safety assessment**

not applicable

**SECTION 16: Other information****Abbreviations**

ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route  
AGW: Arbeitsplatzgrenzwert  
AwSV: Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on facilities for handling substances that are hazardous to water)  
BGW: Biologischer Grenzwert  
CAS: Chemical Abstracts Service  
DNEL: Derived no effect level  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
GGVSee: Gefahrgutverordnung See  
IARC: International Agency for Research on Cancer  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organization  
IMDG: International Maritime Code for Dangerous Goods  
LC: Lethal concentration  
LD: Lethal dose  
MAK: Maximale Arbeitsplatz-Konzentration  
NOEC: No observable effect concentration  
NOEL: No observable effect level  
OECD: Organisation for Economic Co-operation and Development  
OEL: Occupational exposure limit  
PBT: Persistent, Bioaccumulative and Toxic  
PNEC: Predicted no effect concentration  
RID: Règlement concernant le transport international ferroviaire de marchandises dangereuses  
TRGS: Technische Regeln für Gefahrstoffe  
VDI: Verein Deutscher Ingenieure  
VLEP: Valeurs Limites d'exposition Professionnelle  
vPvB: Very persistent and very bioaccumulative  
WGK: Wassergefährdungsklasse (water hazard class)

**Supplemental information**

These data is based on our present knowledge and experience respectively supplier-information. This safety data sheet describes the product in regard to the requirements of safety. The information does not represent a assurance for certain properties. Existing laws and regulations are to be observed by the recipient of our products in own responsibility. It is the responsibility of the user, to determine if the product is suitable for the deliberate operational area and the respective intended purpose. A liability for damages in connection with the use of this information is excluded. Relevant changes compared with the previous version of the safety data sheet are marked with: \*\*\*