



Material Safety Data Sheet

Iron (iii) Oxide - Synthetic

Edition: 27/11/2017
In compliance with Regulation (EC)1907/2006

1) Identification of substance/preparation and of the company undertaking

1.1) Product Identifier

Material	Iron (iii) Oxide- Synthetic
Synonyms	Red Iron Oxide, Synthetic Red Iron Oxide
EC No	
CAS No	1309-37-1
REACH registration No	01-2119457614-35-XXXX
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1.2) Relevant identified uses of the substance or mixture and uses advised against

1.2.1) Relevant identified uses

Use of the substance/preparation:

Substance used as such, in formulation or in formulation of products such as:

- Paints
- Ceramic colours
- Brick stains
- Concrete/Cementitious applications

1.2.2) Uses advised against

- None

Full text of use descriptors: see section 16.

2) Hazard Identification

2.1) Classification of the substance or mixture

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

Product definition: Substance

Physical and chemical hazards: Not classified

Human health: Not classified
 Environment: Not classified
 Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC (Dangerous substances directive) or 1999/45/EC

Not classified
 Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2) Label elements

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

Not a hazardous substance or mixture
 No pictogram required

2.3) Other hazards

This substance/mixture does not meet the PBT criteria

3) Composition/Information on ingredients

3.1) Substances

Chemical Name	EC-No	CAS-No.	Weight %	Classification (67/548/EEC)	Classification (EC) 1272/2008 (CLP)
Iron Oxide		1309-37-1	>90	Not classified	Not classified

Full text of R-, H- and EUH-phrases: see section 16

4) First Aid Measures

4.1) Description of first aid measures

First-aid measures after inhalation: Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

First-aid measures after ingestion: Rinse mouth thoroughly. Get medical attention if any discomfort continues.

First-aid measures after skin contact: Wash skin with soap and water. Get medical attention if irritation persists after washing.

First-aid measures after eye contact: Make sure to remove any contact lenses from the eyes before rinsing. Rinse eye with water immediately. Get medical attention if any discomfort continues.

4.2) Most important symptoms and effects, both acute and delayed

Inhalation: No specific symptoms noted.
Ingestion: No specific symptoms noted.
Skin contact: No specific symptoms noted.
Eye contact: No specific symptoms noted.

4.3) Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5) Firefighting Measures

5.1) Extinguishing media

Suitable extinguishing media: Powder. CO2. Sand.

Unsuitable extinguishing media: None.

5.2) Special hazards arising from the substance or mixture

Fire hazard: Non-flammable.

Explosion hazard: No explosive properties known.

Reactivity: Stable under normal conditions of handling and storage.

5.3) Advice for firefighters

Protection during firefighting: No specific firefighting procedures given.

6) Accidental Release Measures

6.1) Personal precautions, protective equipment and emergency procedures

General measures: Keep public away from danger area. See section 8.2.

6.1.1) For non-emergency personnel

No additional information available

6.1.2) For emergency responders

No additional information available

6.2) Environmental precautions

Prevent entry to sewers and soil. Notify authorities if product enters sewers or public waters.

6.3) Methods and material for containment and cleaning up

Methods for cleaning up: Sweep or shovel spills into appropriate container for disposal.

Avoid dust production.

6.4. Reference to other sections

See section 8 and 13 for more information.

7) Handling and Storage

7.1) Precautions for safe handling

Precautions for safe handling: Do not breathe dust. Wash hands plentifully and other exposed areas with water after handling. Remove contaminated clothing and shoes. Wash clothing before re-using.

Packagings: Even those that have been emptied will retain product residue. Always obey safety warnings and handle empty packagings as if they were full. Avoid all contact with this substance.

Hygiene measures: When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. Remove contaminated clothing and shoes.

7.2) Conditions for safe storage, including any incompatibilities

Storage conditions: Store in dry, cool, well-ventilated area. Keep away from food, drink and animal feeding stuffs.

7.3) Specific end use(s)

The identified uses for this product are detailed in section 1.2

8) Exposure Controls/Personal Protection

Country	Name	STD	TWA-8hrs	STEL- 15min	Notes
UK	Iron Oxide	WEL	5 mg/m ³		

WEL: Workplace exposure limit.

8.2) Exposure controls

Appropriate engineering controls: Use as far as possible in a closed system. Provide a regular control of the atmosphere. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Local exhaust and general ventilation must be adequate to meet exposure standards. Please refer to the annex (exposure scenarios).

Hand protection: Use gloves resistant to chemical products corresponding to EN 374:3. Take advice to gloves' manufacturer.

Eye protection: Wear safety glasses with side shields according EN 166.

Skin and body protection: Wear closed protective clothing.

Respiratory protection: Use respiratory protection mask according to EN 140 or EN 405 with filter type P3 according to EN 143:2000 or FFP3 according to EN 149:2001.

Environmental exposure controls: Avoid release to the environment.

9) Physical/Chemical Properties

Physical state	Fine powder.
Colour	Red.
Odour	Odourless.
Odour threshold	Not applicable
pH	5-8 (Conc. (%w/w): 5%)
Relative evaporation rate (butylacetate=1)	No data available
Melting point	>1,0000°C
Freezing point	No data available
Boiling point	No data available
Flash point	Not flammable
Self ignition temperature	Not applicable
Decomposition temperature	No data available
Flammability (solid, gas)	Not flammable

Vapour pressure	Negligible
Relative vapour density at 20 °C	No data available
Density	No data available
Solubility	5kg/l (200°C)
Log Pow	Insoluble in water
Log Kow	Not applicable
Viscosity, kinematic	Not applicable
Viscosity, dynamic	Not applicable
Explosive properties	Not applicable Not explosive
Oxidising properties	Non-oxidizing material according to EC criteria.
Explosive limits	Not applicable

9.2) Other Information

No additional information available

10) Stability/Reactivity

10.1) Reactivity

No specific reactivity hazards associated with this product.

10.2) Chemical stability

Stable under normal conditions of handling and storage.

10.3) Possibility of hazardous reactions

Not relevant

10.4) Conditions to avoid

No specific conditions are likely to result in a hazardous situation.

10.5) Incompatible materials

No specific, or groups of materials, are likely to react to produce a hazardous situation.

10.6) Hazardous decomposition products

None under normal circumstances.

11) Toxicological Information

11.1) Information on toxicological effects

Other health effects: This substance has no evidence of carcinogenic properties.

Acute toxicity:

Acute toxicity (Oral LD50)	Rat. >5,000mg/kg
Acute toxicity (Dermal LD50)	Not relevant
Acute toxicity (Inhalation LC50)	Rat. >210mg/m ³ Exposure 2 weeks
Inhalation:	Dust in high concentrations may irritate the respiratory system.
Ingestion:	May cause discomfort if swallowed.

Skin contact:	Powder may irritate skin.
Eye contact:	Particles in the eyes may cause irritation and smarting.

12) Ecological Information

12.1) Acute fish toxicity

Not considered toxic to fish.

12.2) Persistence and degradability

This product is not readily biodegradable.

12.3) Bioaccumulative potential

This product is not bioaccumulating

12.4) Mobility in soil

Not relevant, due to the form of the product

12.5) Results of PBT and vPvB assessment

The substance/mixture does not meet the PBT or vPvB criteria of REACH, annex XIII.

12.6) Other adverse effects

None known.

13) Disposal Consideration

13.1) Waste treatment methods

Waste treatment methods: Dispose of this material and residues in accordance with local authority requirements.

Additional information: Empty packaging can have residues or dusts and are subject to proper waste disposal, as above.

Ecology - waste materials: See the European waste catalogue.

14) Transport Information

14.1) UN number

The product is not covered by international regulation on transport of dangerous goods (IMDG, IATA, ADR/RID).

14.2) UN proper shipping name

Not classified for transportation

14.3) Transport hazard class(es)

Not classified for transportation

14.4) Packing group

Not classified for transportation

14.5) Environmental hazards

Other information: Not environmental hazards known with this product.

14.6) Special precautions for user

Not classified for transportation.

14.7) Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

15) Regulatory Information

15.1) Safety, health and environmental regulations/legislation specific for the substance or mixture

Approved code of practice:

Classification and labelling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations.

Guidance notes:

Workplace Exposure Limits EH40.

EU Legislation:

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulations (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

15.2) Chemical Safety Assessment

Not applicable

16) Other Information

Abbreviations and acronyms:

ADN: European Agreement concerning international carriage of Dangerous goods by Inland waterways

ADR: European Agreement concerning international carriage of Dangerous goods by Road

AF: Assessment factor

ATE: Acute Toxicity Estimate

BCF: Bioconcentration factor Bw: Body weight

CAS: Chemical Abstracts Service

CLP: Classification, labelling, packaging (Regulation (EC) No. 1272/2008)

CSR: Chemical Safety Report

DMEL: Derived maximum effect level

DNEL: Derivative No effect Level EC: European Community

ELV: Emission limit val

EUH: European Hazard Statement

EWC: European Waste catalogue

IATA: International Air Transport Association
 ICAO: International Civil Aviation Organization
 IMDG: International Maritime Dangerous Goods
 LC50: Median lethal concentration
 LD50: Median lethal dose
 NOAEL: No-observed-adverse-effect-level
 NOEC: No observed effect concentration
 NOEL: No observed effect level
 PNEC: Predicted No Effect Concentration
 RRN: REACH Registration Number
 OEL: Operator exposure level
 PBT: Persistent, bioaccumulative, Toxic
 PEC: Predicted effect level
 PNEC: Predicted No effect Concentration
 REACH: Registration, evaluation and autorisation of chemicals
 RID: Regulations concerning the international carriage of dangerous goods by rail
 STEL: Short Term Exposure Limit
 TWA: Time weighted average
 vPvB: Very persistent, very Bioaccumulative

Training advice: None.

Full text of R-, H-, P- and S-phrases:

H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
R50	Very toxic to aquatic organisms
P273	Avoid release to the environment.
P391	Collect spillage.
P501	Dispose of contents/containers in accordance with all local. Regional. National and international regulations
S60	This material and its container must be disposed of as hazardous waste.
S61	Avoid release to the environment. Refer to special instructions/safets data sheets.
N	Dangerous for the environment

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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