

# 66 BLACK IRON OXIDE

## Safety Data Sheet

according to Regulation (EC) No. 453/2010

Date of issue: 06/09/2011 Revision date: 16/10/2022

### SECTION 1: Identification of the substance/mixture and of the company/undertaking.

#### 1.1 Product identifier

**Trade name:** BLACK IRON OXIDE

**Article number:** 316 / 318M / BA30M

**CAS Number:** 68186-94-7

**EC number:** 269-056-3

**Reach Registration No.** 01-2119457599-19-0001

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Relevant identified uses

###### Sector of Use

SU1 Agriculture, forestry, fishery

SU2a Mining, (without offshore industries)

SU2b Offshore industries

SU4 Manufacture of food products

SU5 Manufacture of textiles, leather, fur

SU6a Manufacture of wood and wood products

SU6b Manufacture of pulp, paper and paper products

SU7 Printing and reproduction of recorded media

SU8 Manufacture of bulk, large scale chemicals (including petroleum products)

SU9 Manufacture of fine chemicals

SU10 Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

SU11 Manufacture of rubber products

SU12 Manufacture of plastics products, including compounding and conversion

SU13 Manufacture of other non-metallic mineral products, e.g. plasters, cement

SU14 Manufacture of basic metals, including alloys

SU15 Manufacture of fabricated metal products, except machinery and equipment

SU16 Manufacture of computer, electronic and optical products, electrical equipment

SU17 General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment

SU18 Manufacture of furniture

SU19 Building and construction work

SU20 Health services

SU23 Electricity, steam, gas water supply and sewage treatment

SU24 Scientific research and development

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

###### Product category

PC1 Adhesives, sealants

PC2 Adsorbents

PC3 Air care products

PC7 Base metals and alloys

PC8 Biocidal products (e.g. Disinfectants, pest control)

PC9a Coatings and paints, thinners, paint removers

PC9b Fillers, putties, plasters, modelling clay

# 66 BLACK IRON OXIDE

## Safety Data Sheet

according to Regulation (EC) No. 453/2010

Date of issue: 06/09/2011 Revision date: 16/10/2022

PC9c Finger paints  
PC12 Fertilizers  
PC14 Metal surface treatment products, including galvanic and electroplating products  
PC15 Non-metal-surface treatment products  
PC18 Ink and toners  
PC19 Intermediate  
PC20 Products such as ph-regulators, flocculants, precipitants, neutralization agents  
PC21 Laboratory chemicals  
PC23 Leather tanning, dye, finishing, impregnation and care products  
PC24 Lubricants, greases, release products  
PC25 Metal working fluids  
PC26 Paper and board dye, finishing and impregnation products: including bleaches and other processing aids  
PC27 Plant protection products  
PC28 Perfumes, fragrances  
PC29 Pharmaceuticals  
PC30 Photo-chemicals  
PC31 Polishes and wax blends  
PC32 Polymer preparations and compounds  
PC34 Textile dyes, finishing and impregnating products; including bleaches and other processing aids  
PC35 Washing and cleaning products (including solvent based products)  
PC36 Water softeners  
PC37 Water treatment chemicals  
PC38 Welding and soldering products (with flux coatings or flux cores.), flux products  
PC39 Cosmetics, personal care products  
PC0 Other : PC5 Artists supply and Hobby preparations PC6: Automotive Care Products PC10 Buildings and construction preparations, UCN code 62 – electromechanical components, UCN code 26 – Food/Feedstuff flavourings and nutrients

**Process category** PROC 0 : The substance is widely used

**Environmental release category** ERC 0 : The substance is widely used

**Use of the substance/preparation** Pigment

### 1.3. Details of the supplier of the safety data sheet

Simba Materials Ltd. t/a CTM Potters Supplies  
Unit 7 & 8 Broomhouse Lane Industrial Estate  
Doncaster DN12 1EQ 01709 770801

Unit 19 Hogsbrook Units  
Greendale Industrial Estate EAST  
White Cross Road  
Woodbury Salterton  
Exeter EX5 1PY 01395 233077  
[www.ctmpotterssupplies.co.uk](http://www.ctmpotterssupplies.co.uk)

### 1.4. Emergency telephone number

**NCES** 01865 407333 or 111 if out of hours

## SECTION 2: Hazards identification.

### 2.1. Classification of the substance or mixture

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

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 or 1999/45/EC

Not classified

Full text of R-phrases: see section 16

#### Adverse physicochemical, human health and environmental effects

No information

### 2.2. Label elements

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

None

### 2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH, annex XIII.

## SECTION 3: Composition/information on ingredients.

**Chemical characterization:** Substances

**CAS No. Description:** 68186-94-7 Manganese ferrite black spinel

**Identification number(s):**- EC number: 269-056-3

# 66 BLACK IRON OXIDE

## Safety Data Sheet

according to Regulation (EC) No. 453/2010

Date of issue: 06/09/2011 Revision date: 16/10/2022

### SECTION 4: First aid measures.

#### Description of first aid measures

**General information:** Take affected persons out into the fresh air.

#### After inhalation:

Supply fresh air; consult doctor in case of complaints. If necessary, restore normal breathing through standard first aid measures.

**After skin contact:** Generally the product does not irritate the skin.

#### After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

#### After swallowing:

Rinse out mouth and then drink plenty of water. If symptoms persist consult doctor. Induce vomiting only, if affected person is fully conscious.

#### Information for doctor:

#### Most important symptoms and effects, both acute and delayed

Coughing

#### Indication of any immediate medical attention and special treatment needed

No further relevant information available.

### SECTION 5: Firefighting measures.

#### Extinguishing media

#### Suitable extinguishing agents:

Not flammable. Use appropriate extinguishing media for the combustible material involved in the fire.

**For safety reasons unsuitable extinguishing agents:** None.

#### Special hazards arising from the substance or mixture

No further relevant information available.

#### Advice for firefighters Protective equipment:

Wear fully protective suit. Firefighters should use self-contained breathing apparatus.

## SECTION 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.

## SECTION 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 packages 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

### SECTION 8: Exposure controls/personal protection.

#### **Additional information about design of technical facilities:**

Mechanical ventilation may be required to maintain exposure levels below limits.

#### **8.1. Control parameters**

##### **Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

##### **Long-term exposure - systemic effects in workers :**

**Inhalation DN(M)EL :** 10 mg/m<sup>3</sup>

**Additional information:** The lists valid during the making were used as basis.

#### **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.

## SECTION 9: Physical and chemical; properties.

|  |  |
|--|--|
| Physical state                             | Solid Powder.                                    |
| Colour                                     | Black.   |
| Odour                                      | odourless.                                       |
| Odour threshold                            | Not applicable                                   |
| pH   | 5.0 – 8.0 (ISO 787 part IX)                      |
| Relative evaporation rate (butylacetate=1) | No data available                                |
| Melting point                              | >1,000 °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                            | Not applicable.                                  |
| Vapour density                             | No data available                                |
| Density at 25°C                            | 4.76g/cm <sup>3</sup> (ISO 787 part X)           |
| Bulk density at 25°C                       | 700 – 1,200kg/m <sup>3</sup> ((ISO 787 part XI)  |
| Solubility                                 | Insoluble.                                       |
| Log Pow                                    | Not applicable                                   |
| Log Kow                                    | Not applicable                                   |
| Viscosity, kinematic                       | Not applicable                                   |
| Viscosity, dynamic                         | Not applicable                                   |
| Explosive properties                       | Not explosive.                                   |
| Oxidising properties                       | Non oxidizing material according to EC criteria. |
| Explosive limits                           | Not applicable                                   |

### 9.1. Other information

No additional information available

## SECTION 10: Stability and 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

Not relevant

### 10.5. Incompatible materials

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

### 10.6. Hazardous decomposition products

Not relevant

## SECTION 11: Toxicological information.

### 11.1. Information on toxicological effects

#### **Acute toxicity:**

**LD/LC50 values relevant for classification:**

**68186-94-7 Manganese ferrite black spinel**

Oral LD50 > 10000 mg/kg (Rat (male))

Inhalative LC50/4 hr. > 4 mg/lit (rat)

Irritation of skin Skin irritation Negative (rabbit) (OECD 404)

Irritation of eyes Eye irritation Negative (rabbit) (OECD 405)

Carcinogenicity No evidence (rat)

Reverse mutation assay (Ames test) Negative (Salmonella typhimurium) (OECD 471)

#### **Primary irritant effect:**

**on the skin:** No irritant effect.

**on the eye:** No irritating effect.

#### **Additional toxicological information:**

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us. The substance is not subject to classification according to the latest version of the EU lists.

#### **Toxicokinetics, metabolism and distribution**

Absorption and bioavailability is very limited due to low solubility in aqueous and organic solvents.

#### **Repeated dose toxicity**

Prolonged inhalation of iron oxide dust is known to produce condition given as siderosis. On X-rays it appears to be pneumoconiosis and it is not associated with pulmonary fibrosis or disability unless there is concurrent exposure to other fibrosis-producing materials such as silica.

#### **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

Not listed by ACGIH, IARC, NIOSH, NTP or OSHA.



# 66 BLACK IRON OXIDE

## Safety Data Sheet

according to Regulation (EC) No. 453/2010

Date of issue: 06/09/2011 Revision date: 16/10/2022

No evidence of carcinogenic, mutagenic, affects on reproduction.

### SECTION 12: Ecological information.

#### Toxicity

##### Aquatic toxicity:

##### 68186-94-7 Manganese ferrite black spinel

EC0/48 hr. (static) > 10000 mg/lit (daphnia) (EU C.2)

EC50/3 hr. (static) > 10000 mg/lit. (activated sludge) (OECD 209)

EC50/72 h. (static) 18 mg/lit (algae) (OECD 201)

LC0/96 hr. (static) > 100000 mg/lit (Fish)

##### Persistence and degradability

Easily eliminable from water.

Based on previous experience, this product is inert and non-degradable. The inorganic component of product, is not removable from water by biological cleaning process

##### Behaviour in environmental systems:

**Bioaccumulative potential** Does not accumulate in organisms

**Mobility in soil** Insoluble. Expected to remain on soil surface.

##### Ecotoxicological effects:

**Remark:** No data can be given due to product's insolubility in water.

**Remark:** Incidental down-the-drain disposal of small quantities of product will not affect the performance of wastewater treatment systems.

**Other information:** No data can be given due to the product's insolubility in water.

##### Additional ecological information:

**General notes:** Generally not hazardous for water

##### Results of PBT and vPvB assessment

**PBT:** Not applicable.

**vPvB:** Not applicable.

**Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations.

#### Waste treatment methods

##### **Recommendation**

Any disposal practice must be in compliance with all local and national laws and regulations. Do not dump into any sewers, on the ground, or into any body of water. Contact waste processors for recycling information. This product is a non-hazardous waste material suitable for approved solid waste landfills.

##### **European waste catalogue**

04 00 00 WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES

04 02 00 wastes from the textile industry

04 02 17 dyestuffs and pigments other than those mentioned in 04 02 16

##### **Uncleaned packaging:**

##### **Recommendation:**

Disposal must be made according to official regulations.

Packaging may be reused or recycled after cleaning.

Packaging's that may not be cleansed are to be disposed of in the same manner as the product.

Paper bags may be incinerated or disposed of in an appropriate landfill in accordance with national and local laws.

### SECTION 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: No 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.

## SECTION 15: Regulatory information.

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

**Labelling according to Regulation (EC) No 1272/2008** Void

**Hazard pictograms** Void

**Signal word** Void

**Hazard statements** Void

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

#### **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NOAEL : Non Observed Adverse Effects Level

LOAEC : Lowest Observable Adverse Effect Concentration

EC50 : Maximal effective concentration, 50 percent

# 66 BLACK IRON OXIDE

## Safety Data Sheet

according to Regulation (EC) No. 453/2010

Date of issue: 06/09/2011 Revision date: 16/10/2022

---

*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.*

*DISCLAIMER OF LIABILITY The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable*