

## SAFETY DATA SHEET IRON OXIDE BLACK PREPARATION

according to Regulation (EC) No. 1907/2006

SolidFlow **PBk11 Black Iron Oxide** - Product code **SF 910-X**

Date of Revision: October 10<sup>th</sup> 2024    Revision N:1    Country / Language: ITA / EN

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

#### 1.1. Product identifier

Trade name:	Black Iron Oxide Preparation
Product code:	SF 910-X
CAS number:	1317-61-9
INDEX number:	CI Pigment Black 11
EEC (EINECS) number:	215-277-5
Structural Formula:	$\text{Fe}_3\text{O}_4$

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

Use of the Substance/Mixture:	Synthetic pigment mixed with anionic and non-ionic surfactants.
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#### 1.3. Details of the supplier of the safety data sheet

Company:	<b>SIOF S.p.A.</b> Via Garibaldi 62 15068 - Pozzolo Formigaro (AL) Italy Tel: +39 0143417781 VAT nr.: IT 0016470069 Production sites: 1) Pozzolo Formigaro (AL) - Via Garibaldi 62 2) Verona - Via Pisano 53/A
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Email address of the competent person:

siof@siof.it

#### 1.4. Emergency telephone number

Emergency telephone number:	+39 0143417781
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### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008):

Not a hazardous substance or mixture.

#### 2.2. Label elements

Labelling (REGULATION (EC) No 1272/2008):

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required.

#### 2.3. Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

**Components:**

**Remarks:** No hazardous ingredients.

**Components:**

**Name:** Iron Oxide Fe<sub>3</sub>O<sub>4</sub>

**EEC (EINECS) number:** 215-277-5

**CAS number:** 1317-61-9

**Other components:**

**Name:** Anionic and non-ionic additives.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

**General advice:**

Consult a physician.  
Do not leave the victim unattended.  
Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.

**Protection of first-aiders:**

No action shall be taken involving any personal risk or without suitable training.

**If inhaled:**

Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.  
If unconscious, place in recovery position and get medical attention immediately.  
Maintain open airway.  
Loosen tight clothing such as a collar, tie, belt or waistband.  
If symptoms persist, call a physician.

**In case of skin contact:**

Wash off with plenty of water.  
Get medical attention if symptoms occur.

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**In case of eye contact:** Immediately flush eye(s) with plenty of water.  
Remove contact lenses.  
Get medical attention if symptoms appear.

**If swallowed:** Rinse mouth with water.  
Do NOT induce vomiting.  
Call a physician immediately.

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

**Symptoms:** See Section 11 for more detailed information on health effects and symptoms.

**Risks:** See Section 11 for more detailed information on health effects and symptoms

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

**Treatment:** Treat symptomatically.

## SECTION 5: Firefighting measures

**5.1 Extinguishing media**

**Suitable extinguishing media:** In case of fire, use water spray (fog), foam, dry chemical or CO<sub>2</sub>.

**Unsuitable extinguishing media:** None known.

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

**Specific hazards during fire-fighting:** Do not allow run-off from fire fighting to enter drains or water courses.

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**5.3 Advice for firefighters**

**Special protective equipment for firefighters:**

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:**

Standard procedure for chemical fires.

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.

No action shall be taken involving any personal risk or without suitable training. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

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

## SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures**

**Personal precautions:** No action shall be taken involving any personal risk or without suitable training.

Keep unnecessary and unprotected personnel from entering.

Do not touch or walk through spilt material.

Avoid breathing dust.

Provide adequate ventilation.

Avoid dust formation.

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In case of inadequate ventilation wear respiratory protection.  
Use personal protective equipment.

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**6.2 Environmental precautions**

**Environmental precautions:**

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.  
If the product contaminates rivers and lakes or drains inform respective authorities.

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

**Methods for cleaning up:**

Pick up and arrange disposal without creating dust.  
Sweep up and shovel.  
Keep in suitable, closed containers for disposal.  
Move containers from spill area.  
Stop leak if safe to do so.  
Dispose of wastes in an approved waste disposal facility.

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**6.4 Reference to other sections**

For personal protection see section 8., For disposal considerations see section 13.

## SECTION 7: Handling and storage

**7.1 Precautions for safe handling**

**Advice on safe handling:**

For personal protection see section 8.  
Avoid contact with skin and eyes.  
Provide sufficient air exchange and/or exhaust in work rooms.  
In case of insufficient ventilation, wear suitable respiratory equipment.  
Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use.  
Dispose of rinse water in accordance with local and national regulations.

**Advice on protection against fire and explosion:**

Provide appropriate exhaust ventilation at places where dust is formed.

**Hygiene measures:**

General industrial hygiene practice.

When using do not eat, drink or smoke. Wash face, hands and any exposed skin thoroughly after handling. Wash contaminated clothing before reusing. Remove contaminated clothing and protective equipment before entering eating areas.

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**7.2 Conditions for safe storage, including any incompatibilities**

**Requirements for storage areas and containers:**

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep containers tightly closed in a dry, cool and well-ventilated place. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Electrical installations / working materials must comply with the technological safety standards.

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**Advice on common storage:** No materials to be especially mentioned.  
**Storage class (TRGS 510):** 13, Non Combustible Solids.  
**Further information on storage stability:**  
Keep in a dry place.  
No decomposition if stored and applied as directed.

**7.3 Specific end use(s)**

**Specific use(s):** No data available.

**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters**

Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:				
Substance name	End Use	Exposure routes	Potential health effects	Value
triiron tetraoxide	Workers	Inhalation	Systemic effects, Long-term exposure	10 mg/m <sup>3</sup>
	Workers	Inhalation	Local effects, Long-term exposure	10 mg/m <sup>3</sup>

**8.2 Exposure controls**

**Engineering measures:** Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Personal protective equipment**

**Eye/face protection:** Safety glasses with side-shields conforming to EN166

**Hand protection**

**Material:** Leather gloves

**Wearing time:** < 60 min

**Remarks:** The suitability for a specific workplace should be discussed with the producers of the protective gloves. After contamination with product change the gloves immediately and dispose of them according to relevant national and local regulations.

**Skin and body protection:**

Impervious clothing

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Additional body garments should be used (e.g. sleevelets, apron, disposable suit etc.), based on the task being performed.

**Respiratory protection:**

Dust-protection mask if there is a risk of dust formation.

**Filter type:** P1 filter

**Environmental exposure controls**

**Water:** The product should not be allowed to enter drains, water courses or the soil.



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**SECTION 9: Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

<b>Appearance:</b>	Granules
<b>Physical state:</b>	Solid
<b>Colour:</b>	Black
<b>Odour:</b>	Characteristic
<b>Solubility:</b>	Insoluble in water. It disperses.
<b>Density:</b>	~ 6 kg/l (pigment)
<b>Bulk density:</b>	0.8 - 1.2 kg/l
<b>Decomposition temperature:</b>	Not available
<b>Flammability:</b>	Not applicable

**9.2 Other information**

No data available

**SECTION 10: Stability and reactivity**

**10.1 Reactivity**

No specific test data related to reactivity available for this product or its ingredients.

**10.2 Chemical stability**

The product is chemically stable.

**10.3 Possibility of hazardous reactions**

**Hazardous reactions:** No dangerous reaction known under conditions of normal use.

**10.4 Conditions to avoid**

**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.

**10.5 Incompatible materials**

**Materials to avoid:** No specific data.

**10.6 Hazardous decomposition products**

**Hazardous decomposition products:** No decomposition if stored and applied as directed.

**SECTION 11: Toxicological information**

**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

**Information on likely routes of exposure:** Inhalation  
Eye contact  
Skin contact

**Acute toxicity** Not classified based on available information.

**Product:**

**Acute oral toxicity:** LD50 (Rat): > 5.000 mg/kg  
Remarks: Test results on an analogous product.

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**Skin corrosion/irritation:** Not classified based on available information.

**Product:**

**Species:** Rabbit.  
**Method:** OECD Test Guideline 404.  
**Result:** No skin irritation.  
**Remarks:** Information refers to the main component.

**Serious eye damage/eye irritation:** Not classified based on available information.

**Product:**

**Species:** Rabbit.  
**Method:** OECD Test Guideline 405  
**Result:** No eye irritation.  
**Remarks:** Information refers to the main component.

**Respiratory or skin sensitization:**

**Skin sensitisation:** Not classified based on available information.

**Respiratory sensitisation:** Not classified based on available information.

**Product:**

**Species:** Guinea pig.  
**Result:** Not a skin sensitizer.  
**Remarks:** Information refers to the main component.

**Germ cell mutagenicity:** Not classified based on available information.

**Product:**

**Genotoxicity in vitro:**

Test Type: Ames test  
Test system: Bacteria  
Metabolic activation: with and without metabolic activation  
Result: negative  
Remarks: Information refers to the main component.

Test Type: In vitro mammalian cell gene mutation test  
Test system: Mammalian-Animal  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 476  
Result: negative  
Remarks: Information refers to the main component.

Test Type: Chromosome aberration test in vitro  
Test system: Mammalian-Animal  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 473  
Result: negative  
Remarks: Information refers to the main component.

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**Carcinogenicity:** Not classified based on available information.

**Product:**

**Species:** Rat, male and female.  
**Exposure time:** 914 days  
**Dose:** 600 mg/kg body weight  
**Result:** negative.  
**Remarks:** Information refers to the main component.

**Reproductive toxicity:** Not classified based on available information.

**STOT - single exposure:** Not classified based on available information.  
**STOT - repeated exposure:** Not classified based on available information.

**Repeated dose toxicity:**

**Product:**

**Species:** Rat, male.  
**LOAEL:** 185,6 mg/m<sup>3</sup>  
**Application Route:** inhalation (dust/mist/fume)  
**Exposure time:** 2 weeks.  
**Number of exposures:** 6 hours/day.  
**Remarks:** Information refers to the main component.

**Aspiration toxicity:** Not classified based on available information.

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**11.2 Information on other hazards**

**Endocrine disrupting properties**

**Product:**

**Assessment:** The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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**SECTION 12: Ecological information**

**12.1 Toxicity**

**Product:**

**Toxicity to fish:** LC50 (Danio rerio (zebra fish)): > 10.000 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203  
Remarks: Fresh water  
Information refers to the main component.

**Toxicity to daphnia and other aquatic invertebrates:**

EC0 (Daphnia magna (Water flea)): > 10.000 mg/l  
Exposure time: 48 h  
Method: Regulation (EC) No. 440/2008, Annex, C.2  
Remarks: Fresh water  
Information refers to the main component.



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**Toxicity to microorganisms:**

EC50 (adapted and activated sludge micro-organism):

Exposure time: 3 h

Method: OECD Test Guideline 209

Remarks: Fresh water

Information refers to the main component.

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**12.2 Persistence and degradability**

No data available.

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**12.3 Bioaccumulative potential**

No data available.

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**12.4 Mobility in soil**

No data available.

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**12.5 Results of PBT and vPvB assessment**

**Product:**

**Assessment:**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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**12.6 Endocrine Disrupting Properties**

**Product:**

**Assessment:**

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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**12.7 Other adverse effects**

**Product:**

**Additional ecological information:**

Ecotoxicological data are not available.

No known significant effects or critical hazards.

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**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

**Product:**

The generation of waste should be avoided or minimised wherever possible. Where possible recycling is preferred to disposal or incineration.

Product residues and uncleaned empty containers should be packaged, sealed, labelled, and disposed of or recycled according to relevant national and local regulations.

When uncleaned empty containers are passed on, the recipient must be warned of any possible hazard that may be caused by residues.

Waste disposal should be in accordance with existing federal state, provincial and or local environmental controls.

Do not contaminate ponds, waterways or ditches with chemical or used container.

The product should not be allowed to enter drains, water courses or the soil.

For disposal within the EC, the appropriate code according to the European Waste List (EWL) should be used.

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It is among the tasks of the polluter to assign the waste to waste codes specific to industrial sectors and processes according to the European Waste List (EWL).

Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

**Contaminated packaging:**

Empty remaining contents.

Dispose of as unused product.

Empty containers should be taken to an approved waste handling site for recycling or disposal.

**SECTION 14: Transport information**

**14.1 UN number or ID number**

**ADN:** Not regulated as a dangerous good.  
**ADR:** Not regulated as a dangerous good.  
**RID:** Not regulated as a dangerous good.  
**IMDG:** Not regulated as a dangerous good.  
**IATA:** Not regulated as a dangerous good.

**14.2 UN proper shipping name**

**ADN:** Not regulated as a dangerous good.  
**ADR:** Not regulated as a dangerous good.  
**RID:** Not regulated as a dangerous good.  
**IMDG:** Not regulated as a dangerous good.  
**IATA:** Not regulated as a dangerous good.

**14.3 Transport hazard class(es)**

**ADN:** Not regulated as a dangerous good.  
**ADR:** Not regulated as a dangerous good.  
**RID:** Not regulated as a dangerous good.  
**IMDG:** Not regulated as a dangerous good.  
**IATA:** Not regulated as a dangerous good.

**14.4 Packing group**

**ADN:** Not regulated as a dangerous good.  
**ADR:** Not regulated as a dangerous good.  
**RID:** Not regulated as a dangerous good.  
**IMDG:** Not regulated as a dangerous good.  
**IATA (Cargo):** Not regulated as a dangerous good.  
**IATA (Passenger):** Not regulated as a dangerous good.

**14.5 Environmental hazards**

Not regulated as a dangerous good.

**14.6 Special precautions for user**

**Hazard and Handling Notes:** Not dangerous cargo.  
Keep separated from foodstuffs.

**14.7 Maritime transport in bulk according to IMO instruments**

Not applicable for product as supplied.

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## SECTION 15: Regulatory information

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

**REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)**

Not applicable

**International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors:**

Not applicable

**REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59):**

This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

**Regulation (EC) No 1005/2009 on substances that deplete the ozone layer:**

Not applicable

**Regulation (EU) 2019/1021 on persistent organic pollutants (recast):**

Not applicable.

**Council Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors:**

Neither banned nor restricted

**Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals:**

Not applicable.

**REACH - List of substances subject to authorisation (Annex XIV):**

Not applicable

**Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.**

Not applicable.

**Water hazard class (Germany):**

nwg not water endangering

Code Number: 751

Remarks: Classification according to AwSV, Annex 1 (2.1)

Classification according to AwSV, Annex 1 (4)

### 15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

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#### **SECTION 16: Other information**

<b>Issued by:</b>	Responsible for Health, Safety, and Environment
<b>Date:</b>	October 10 <sup>th</sup> , 2024
<b>Revision:</b>	1

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**More information:**

This safety data sheet is drawn up in compliance with in force the regulations in classification and labeling matter on the revision date indicated in the header. The information provided on this SAFETY DATA SHEET corresponds to the state of our knowledge and knowledge our experience of the product, and it is not exhaustive.

It applies to the product as is, compliant with specifications. In case of combinations or mixtures, make sure that no new danger can arise. In no case does it exempt the user of the product from complying with all legislative provisions, administrative and regulatory issues relating to the product, hygiene and safety at work.