

SAFETY DATA SHEET IRON OXIDE YELLOW PREPARATION

according to Regulation (EC) No. 1907/2006

SolidFlow **PY42 Yellow Iron Oxide** - Product code **SF 116-X**

Date of Revision: October 10th 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:	Yellow Iron Oxide Preparation
Product code:	SF 116-X
CAS number:	51274-00-1
INDEX number:	CI Pigment Yellow 42
EEC (EINECS) number:	257-098-5
Structural Formula:	FeO(OH)

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

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

Company	SIOF S.p.A. 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)

Not a hazardous substance or mixture.

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.

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



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SECTION 3: Composition/information on ingredients

3.1 Substances

Remarks: Non hazardous ingredients

Components:

Name: Iron Oxide FeO(OH)

EEC(EINECS) number: 257-098-5

CAS number: 51274-00-1

Other components: Anionic and non-ionic additives

This substance/mixture contains nanoforms. As a precautionary measure, the D10 of the pigmentary preparation may be considered to approach the size of the primary particle. The nanoforms pertain to the pigment as a single component.

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.
Continue to rinse for at least 10 minutes.
Take off contaminated clothing and shoes immediately.
Wash contaminated clothing before re-use.

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In case of eye contact:

If symptoms persist, call a physician.
Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.
Continue to rinse for at least 10 minutes.
Keep eye wide open while rinsing.
Remove contact lenses.
Protect unharmed eye.
If eye irritation persists, consult a specialist.

If swallowed :

Get medical attention if symptoms appear.
Rinse mouth with water.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.
Never give anything by mouth to an unconscious person.
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.

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.

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 CO₂.

Unsuitable extinguishing media: None known.

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.

Hazardous combustion prod-ucts: The product itself does not burn.

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.

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

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.

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.

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.

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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.

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.

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.

8.2 Exposure controls

Engineering measures:

This information is not available.

Personal protective equipment:

Eye protection:

Safety glasses with side-shields conforming to EN166

Hand protection Wearing time:

< 60 min

Material:

Leather gloves

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.

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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.



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Environmental exposure controls:

Water:

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

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	granules
Physical state:	solid
Colour:	yellow
Odour:	characteristic
Solubility:	Insoluble in water. Insoluble in organic solvents. It disperses.
Density:	~ 4 kg/l (pigment)
Bulk density:	0.8 - 1.2 kg/l
Decomposition temperature:	180 °C (pigment)
Hazardous reactions:	not applicable

9.2 Other information

No data

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: From approx. 180 °C conversion into Fe₂O₃.

10.5 Incompatible materials

Substance subject to catalytic decomposition caused by the powder, such as peroxides. Avoid contact with aluminum, calcium hypochlorite, idrazin, and ethyl oxide powders.

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

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Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity:

LD50 (Rat, male): > 10.000 mg/kg

GLP: No information available.

Acute inhalation toxicity:

LC50 (Rat, male and female): > 5 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

GLP: yes

Assessment: The substance or mixture has no acute inhalation toxicity

Remarks: Dosage caused no mortality Test results on an analogous product

Not classified based on available information

Skin corrosion/irritation:

Product:

Species:

Rabbit

Exposure time:

24 h

Result:

No skin irritation.

GLP:

No.

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Species:

Rabbit.

Result:

No eye irritation.

GLP:

No.

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Product:

Test Type:

Maurer optimisation test

Exposure routes:

Skin contact

Species:

Guinea pig

Result:

Did not cause sensitisation on laboratory animals.

GLP:

no

Germ cell mutagenicity:

Not classified based on available information.

Product:

Genotoxicity in vitro:

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

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Result: negative
GLP: No information available.
Remarks: Test results on an analogous product

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster fibroblasts
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: yes
Remarks: Test results on an analogous product

Test Type: In vitro mammalian cell gene mutation test
Test system: Chinese hamster fibroblasts
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: yes
Remarks: Test results on an analogous product

Carcinogenicity

Reproductive toxicity

STOT - single exposure

STOT - repeated exposure

Repeated dose toxicity

Product:

Species: Rat, male and female
NOAEL: 4,7 mg/m³
Application Route: inhalation (dust/mist/fume)
Exposure time: 90 d
Number of exposures: 6hours/day
Dose: 4,7 - 16,6 - 52,1 mg/m³
Method: OECD Test Guideline 413
GLP: yes
Remarks: Subchronic toxicity Test results on an analogous product

Species: Rat, male
NOAEL: 10,1 mg/m³
Application Route: inhalation (dust/mist/fume)
Exposure time: 28 d
Number of exposures: 6hours/day
Dose: 10,1-19,7-45,6-95,8 mg/m³
Method: OECD Test Guideline 412

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GLP: yes
Remarks: Subacute toxicity Test results on an analogous product

Aspiration toxicity Not classified based on available information.

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.

Further information

Product:

Remarks:

Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish:

LC50 (Danio rerio (zebra fish)): > 100.000 mg/l
Exposure time: 96 h
Test Type: static test
Analytical monitoring: no
Method: OECD Test Guideline 203
GLP: no
Remarks: Fresh water nominal concentration

Toxicity to daphnia and other aquatic invertebrates:

LC50 (Daphnia magna (Water flea)): >= 100 mg/l
Exposure time: 48 h
Test Type: static test
Analytical monitoring: no
Method: OECD Test Guideline 202
GLP: yes
Remarks: Fresh water nominal concentration

Toxicity to microorganisms:

EC50 (activated sludge): >= 10.000 mg/l
End point: Respiration inhibition
Exposure time: 3 h
Analytical monitoring: no
Method: ISO 8192
GLP: no
Remarks: Fresh water Test results on an analogous product

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12.2 Persistence and degradability

Product:

Biodegradability:

Result: The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

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.

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.

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.

12.7 Other adverse effects

Product:

Adsorbed organic bound halogens (AOX):

Remarks: The product does not contain organically bounded halogens which could lead to an AOX value in waste water.

Additional ecological information:

Ecotoxicological data are not available.

No known significant effects or critical hazards.

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

Dispose of as hazardous waste in compliance with local and national regulations.

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.



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

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 Not regulated as a dangerous good.

14.2 UN proper shipping name Not regulated as a dangerous good.

14.3 Transport hazard class(es) Not regulated as a dangerous good.

14.4 Packing group 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 Marine Transport in bulk in accordance with IMO acts

Not applicable for product as supplied.

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



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Regulation (EC) 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: 752

Remarks: Classification according to AwSV, Annex 1 (4)

Classification according to AwSV, Annex 1 (4)

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

SECTION 16: Other information

Issued by:

Responsible for Health, Safety, and Environment

Issue date:

October 10th, 2024

Revision N:

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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.