

## SAFETY DATA SHEET

According to OSHA 29 CFR 1910.1200 – GHS

**Revision date:** September 29, 2016

**Supersedes:** July 15, 2016

### NUBIFER SYNTHETIC YELLOW IRON OXIDES

#### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** Nubifer Y-2022, Y-4011, Y-4021, Y-5010  
Nubifer Y-5011, Y-5020, Y-5021, Y-5028  
Y-700 Iron Oxide Yellow

**Use:** Coloring agents, Pigments

**Company identification:** FERRO CORPORATION  
6369 Peachtree Street  
Norcross, GA 30071, USA  
Tel +1 (470) 273-3360  
[nuproducts.safety@ferro.com](mailto:nuproducts.safety@ferro.com)

**Emergency telephone number:** 800-424-9300 (CHEMTREC, 24 hours)  
International call: 703-527-3887 (collect calls accepted)

#### 2. HAZARDS IDENTIFICATION

**Classification of the chemical in accordance with Standard 29 CFR 1910.1200 (US-GHS)**

Not classified.

**Label elements (Hazard Communication Standard 29 CFR 1910.1200 (US- GHS))**

No labelling applicable.

#### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS No	Concentration (%)	RTECS No
Iron hydroxide oxide yellow (Pigment Yellow 42, CI 77492)	51274-00-1	100	---

**Substance / Mixture:** Substance

**Synonyms:** Yellow Iron Oxide

#### 4. FIRST-AID MEASURES

**Description of first-aid measures**

**In case of inhalation:** If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical attention.

**In case of skin contact:** Rinse skin with water. If skin irritation occurs, get medical advice.

**In case of eye contact:** Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation occurs, get medical advice.

**In case of ingestion:** Rinse mouth. Do not induce vomiting unless directed to do so by a physician. If you feel unwell, seek medical attention.

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

Not expected to present a significant hazard under anticipated conditions of normal use.

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

Treat symptomatically and supportively.

#### 5. FIRE-FIGHTING MEASURES

**Extinguishing Media**

Suitable Extinguishing Media: Foam, water spray, dry chemical powder, carbon dioxide or sand.

Unsuitable Extinguishing Media: Do not use a heavy water stream.

**Specific hazards arising from the chemical**

No specific fire or explosion hazard.

**Special protective equipment and precautions for fire-fighters**

Wear self-contained breathing apparatus and protective clothing.

#### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**

Provide adequate ventilation. Evacuate unnecessary personnel. Wear personal protection equipment (See section 8).

**Environmental precautions**

Do not allow to enter into surface water or drains. Ensure waste is collected and contained.

**Methods for containment and clean up**

On land, sweep or shovel into suitable containers for disposal or recovery. Minimize generation of dust.

#### 7. HANDLING AND STORAGE

**Precautions for safe handling**

Handling: Avoid breathing dust. Wash thoroughly after handling. Keep container tightly closed. Wear appropriate personal protective equipment as specified in Section 8.

Technical protective measures: Provide adequate ventilation to minimize dust and/or vapor concentrations.

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

Storage: Keep only in the original container in cool, dry, well-ventilated places away from incompatible materials. Keep container closed when not in use.

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Occupational exposure limits**

OSHA, ACGIH and NIOSH have established the following limits for Iron Oxides:

Exposure Limits: Iron Oxides		
ACGIH TLV	OSHA PEL	NIOSH REL
Total dust: 10 mg/m <sup>3</sup> as Fe (8h) Respirable: 5 mg/m <sup>3</sup> as Fe (8h)	Fumes: 10 mg/m <sup>3</sup> (8h) Respirable dust: 5 mg/m <sup>3</sup> (8h)	5 mg/m <sup>3</sup> as Fe (dust and fumes)

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#### Appropriate engineering controls

If needed use local exhaust ventilation to keep dust concentration below limits cited in this Section.

#### Personal protective equipment

**Respiratory protection:** Dust mask required in dusty environments or exceeding total dust limits.

**Eye/face protection:** Wear appropriate chemical safety glasses/goggles.

**Hand /Skin protection:** Wear appropriate protective gloves and clothing.

#### General Hygiene Considerations

Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Information on basic physical and chemical properties

<b>Appearance:</b>	Solid, fine powder
<b>Color:</b>	Yellow
<b>Odor:</b>	Odorless
<b>pH:</b>	4 – 7 [ASTM D-1208-78]
<b>Melting point:</b>	> 1000 °C
<b>Boiling point:</b>	Not applicable
<b>Flash point:</b>	Not applicable
<b>Flammability (solid, gas):</b>	Not flammable
<b>Explosive properties:</b>	Not explosive
<b>Vapor pressure at 20°C:</b>	Not applicable
<b>Vapor density:</b>	Not applicable
<b>Density:</b>	3.5 – 4.5 g/cm <sup>3</sup> [ASTM D-153-84] (water=1)
<b>Solubility in water:</b>	Insoluble
<b>Partition coefficient, n-octanol/water:</b>	Not applicable
<b>Auto-ignition temperature:</b>	Not applicable
<b>Decomposition temperature:</b>	> 180 °C
<b>Viscosity:</b>	Not applicable

### 10. STABILITY AND REACTIVITY

#### Reactivity

No hazardous reaction known under normal conditions of use

#### Chemical stability

Stable under normal conditions

#### Possibility of hazardous reactions

Stable under normal conditions

#### Conditions to avoid

At temperatures above 180 °C conversion into Fe<sub>2</sub>O<sub>3</sub>

#### Incompatible materials

Strong acids and bases

#### Hazardous decomposition products

None under normal conditions

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#### 11. TOXICOLOGICAL INFORMATION

<b>Acute oral Toxicity:</b>	LD50 oral, rat: > 10000 mg/kg
<b>Acute Toxicity:</b>	Based on available data, the classification criteria are not met
<b>Chronic Toxicity:</b>	Based on available data, the classification criteria are not met
<b>Irritation:</b>	Non-irritant
<b>Sensitization:</b>	Non-sensitizing
<b>Mutagenicity:</b>	Non-mutagenic
<b>Carcinogenicity:</b>	No human carcinogen
<b>Reproductive toxicity:</b>	No toxic for reproduction
<b>Aspiration hazard:</b>	Not applicable

#### 12. ECOLOGICAL INFORMATION

##### Ecotoxicity

Based on available data, the classification criteria are not met

LC50 (Fish 96 h) : > 100000 mg/L (*Danio rerio*)

##### Persistence and degradability

Not applicable (Inorganic substance)

##### Bioaccumulative potential

Not applicable

##### Mobility in soil

Not applicable

##### Results of PBT and vPvB assessment

The substance does not meet the criteria to be identified as PBT or vPvB

#### 13. DISPOSAL CONSIDERATIONS

Dispose in a safe manner in accordance with local / state / Federal regulations. Avoid release to the environment.

It is responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal method in compliance with applicable regulations.

#### 14. TRANSPORT INFORMATION

##### DOT

Not regulated. Not dangerous good.

##### Transport by sea (IMO / IMDG)

Not regulated. Not dangerous good

##### Air transport (ICAO/ IATA)

Not regulated. Not dangerous good

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#### 15. REGULATORY INFORMATION

##### US Federal Regulations

**TSCA:** CAS # 51274-00-1 is listed on TSCA Inventory

##### SARA Title III Rules

**Section 302 – Extremely Hazardous Substances:** None

**Section 304 – CERCLA Hazardous Substances:** None

##### Sections 311/312 – EPCRA (Hazard Classes)

*Immediate (Acute):* None

*Delayed (Chronic):* None

*Fire:* None

*Release of pressure:* None

*Reactivity:* None

**Section 313 – Toxic Chemical Release Inventory (TRI):** None

##### US State Regulations

Yellow Iron Oxides do not appear on the following state Right-To-Know Lists:

*California Proposition 65*

*Florida Hazardous Substances List*

*Massachusetts Substance List*

*Michigan Critical Materials Register*

*Minnesota Hazardous Substances List*

*New Jersey Hazardous Substance List*

*Pennsylvania Hazardous Substance List*

##### FDA

Yellow Iron Oxide is cleared in 21 CFR:

*Part 178 under §178.3297 (Colorants for polymers)*

*Part 177 under §177.2600 (Colorants in Rubber Articles intended for repeated Use)*

*Part 177 under §177.1210 (Closures with sealing gaskets for food containers)*

*Part 175 under §175.300 (Resinous and polymeric coatings)*

**Note:** For food contact applications, users are asked to contact our technical service for further information.

##### Canada

DSL (*Canadian Environmental Protection Act, Domestic Substances List*): included

##### European Union

REACH (*Regulation (EC) No 1907/2006*): Nubiola-Ferro registered substance, REACH no: 01-2119457554-33

EINECS (*European Inventory of Existing Commercial Chemical Substances*): 257-098-5

CLP (*Regulation (EC) No 1272/2008*): Yellow Iron Oxide is not classified as hazardous substance

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#### 16. OTHER INFORMATION

**Modification(s) to the previous version:** Office phone number has changed

This Safety Data Sheet complies with OSHA Hazard Communication Standard 29 CFR 1910.1200 (HCS-2012) and its adaptation of United Nations 'Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

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