



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

### 1.1. Product identifiers

Substance name: Iron hydroxide oxide  
Trade name: Pigment Yellow Iron Oxide sort G-0, G-1 and G-2  
EC / CAS number: 243-746-4 / 20344-49-4  
Registration # (assigned under Article 20(3) of Regulation (EC) No 1907/2006): The substance is not required to be registered according to Annex V point 6 of REACH Regulation (EC)No 1907/2006. For more information, see section 3.1. of the MSDS.

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

Identified uses: Laboratory chemicals, Manufacture of substances. Colorants (pigments and dyestuffs), inorganic.  
Uses advised against: Not known.

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

Company Contact Details: Address: Yaroslavskiy Pigment, Limited Liability Company.  
Polushkina Roscha str. 16, Yaroslavl, 150044 Russian Federation.  
Tel.: +7 (485) 2737077  
Fax: +7 (485) 2737618  
E-mail: pigment-yar@yandex.ru.  
Only Representative Contact Details: Address: Tekniikantie 21, 02150 Espoo, Finland  
Tel: +358 923 164353  
Fax: +358 985 657173  
E-mail: hs@reach-registrator.net.

### 1.4. Emergency telephone number

Company/Importer/OR Emergency number: +7 (485) 2755231.

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification according to the criteria of Regulation (EC) No 1272/2008 (CLP Regulation):  
**For physical-chemical properties:** Not classified.  
**For health hazards:** Not classified.  
**For environmental hazards:** Not classified.

### 2.2. Label elements

Labelling according to the GHS criteria of Regulation (EC) No 1272/2008 (CLP Regulation):  
**Signal word:** No signal word.



### 2.3. Other hazards

PBT assessment: The substance is not PBT/vPvB.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Main constituent(s):

Chemical name	Molecular	% (mass)	EC No
Iron hydroxide oxide*	FeO(OH)	Up to 100.0	243-746-4

\* - In accordance with Annex V point 6 of REACH Regulation, the substance diiron trioxide EC#215-168-2 has been registered. REACH pre-registration number is 05-2118896171-36-0000.

Additive(s)\*:

N/A

Other Components / Impurities:

There are no other components that need to be disclosed in accordance with Regulation (EC) No1907/2006 (REACH Regulation).

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Eye contact: Flush eyes with water as a precaution.

Skin contact: No special measures required

Ingestion: No special measures required.

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

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11.

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

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

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Extinguishing media which shall not be used for safety reasons: No data available.

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

Hazards from the substance or mixture: No specific fire or explosion hazard.

Hazardous combustion products: No specific data.

### 5.3. Advice for firefighters

Special protective equipment for fire-fighters: Not applicable.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive



pressure mode.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Avoid breathing dust. Provide adequate ventilation. Put on appropriate personal protective equipment (see Section 8). Hazard of slipping on spilt product.

### 6.2. Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### 6.3. Methods and material for containment and cleaning up

**Small spill:** Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

**Large spill:** Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

### 6.4. Reference to other sections

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

No special measures required.

### 7.2. Conditions for safe storage, including any incompatibilities

No special measures required.

### 7.3. Specific end use(s)

Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No data available.

**DNELs:**



Ingredient name	Type	Exposure	Value	Population	Effects
Iron hydroxide Yellow	DNEL	Long term Inhalation	10 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	3 mg/m <sup>3</sup>	Workers	Local

DNEL conclusion/summary:

Dust Inhalable 10 mg/m<sup>3</sup>, Respirable dust 3 mg/m<sup>3</sup>

**PNECs:**

Not applicable.

Recommended monitoring procedures:

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

## 8.2. Exposure controls

Risk management measures.  
Occupational exposure controls.  
Technical measures:

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal protection measures:

**Respiratory protection. Hand protection:** Dust-protection mask.

**Hand protection:** gloves.

**Eye protection:** Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If operating conditions cause high dust concentrations to be produced, use dust goggles. Recommended safety glasses with side-shields.

**Skin protection:** Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Hygiene measures:** Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing.

Environmental exposure controls:

**Technical measures:** Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Appearance:	Dry yellow homogeneous powder.
Odour:	Odorless.
Odour threshold:	Not applicable.
pH:	4,0-7,0 [Conc. (% w/w): 5%].
Melting point/freezing point:	Melting point/range: 1'597 °C.
Initial boiling point and boiling range:	No data available.
Flash point:	Not applicable.
Evaporation rate:	≤1,5%.
Flammability:	Incombustible.
Vapour pressure:	No data available.
Relative vapour density:	No data available.
Relative density:	≤5,5 g/cm <sup>3</sup> at 20°C.
Solubility(ies):	In water not more than 0,8%. Soluble in hydrochloric acid, sulfuric acid and low soluble in nitric acid.
Partition coefficient: n-octanol/water:	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.
Explosive properties:	Not explosive.
Oxidising properties:	No data available.

### 9.2. Other information

Oil absorption:	30-60% weight/weight.
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## 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 stable.

### 10.3. Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

### 10.4. Conditions to avoid

No data available.

### 10.5. Incompatible materials

No specific data.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.



**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

Acute toxicity:

Product/ingredient name	Result	Species	Dose	Exposure	Test
Iron Oxide Yellow	LD50 Oral	Rat	>5000 mg/kg		Inhalation Dusts and Mists
Iron hydroxide oxide Yellow	LC50	Rat	>210 mg/m <sup>3</sup>	2 weeks	Inhalation Dusts and Mists

Serious eye damage/eye irritation: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

Skin corrosion/irritation: Non-irritating. Test results on an analogous product.

Respiratory or skin sensitization: Not sensitizing. Test on skin of Guinea pig.

Germ cell mutagenicity: Negative. Ames test. Experiment: In vitro Subject: Bacteria.

Carcinogenicity: Carcinogenicity - Rat - Subcutaneous.

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Tumorigenic: Tumors at site or application.

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Diiron trioxide).

Reproductive toxicity: No data available.

Specific target organ toxicity - single exposure: No data available.

Specific target organ toxicity - repeated exposure: No data available.

Aspiration hazard: No data available.

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

**SECTION 12: Ecological information**

**12.1. Toxicity**

Product/ingredient name	Test	Result	Species	Exposure
Iron Oxide Yellow	ISO 8192	Acute EC50 >10000 mg/l	Microorganism Activated sludge	3 hours
	OECD 202 Daphnia sp.Acute Immobilization Test	Acute EC50 >100 mg/l	Daphnia-Daphnia magna	48 hours
	-	Acute LC0 >50000 mg/L	Fish - Danio rerio	96 hours





## 12.2. Persistence and degradability

No data available.

## 12.3. Bioaccumulative potential

No data available.

## 12.4. Mobility in soil

No data available.

## 12.5. Results of PBT and vPvB assessment

No data available.

## 12.6. Other adverse effects

No data available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product:

Methods of disposal: Examine possibilities for re-utilization. Product residues and unlearned empty containers should be packaged, sealed, labeled, and disposed of or recycled according to relevant national and local regulations.

Hazardous waste: Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

Packaging:

Methods of disposal: The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions: This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

### 14.1. UN number

UN No:

Not classified.

### 14.2. UN proper shipping name

UN Proper Shipping Name:

Not dangerous goods.

### 14.3. Transport hazard class(es)

Hazard Class or Division:

Not classified.

### 14.4. Packing group

UN Packing Group:

Not classified.

### 14.5. Environmental hazards

Environmental Hazards:

The substance is not classified as to the effects on the environment.



**14.6. Special precautions for user**

Note: None.

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

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**SECTION 15: Regulatory information**

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

**15.2 Chemical Safety Assessment**

For this product a chemical safety assessment was not carried out.

**SECTION 16: Other information**

**Indication of changes:**

Version 1.0 dated 30/03/2016 – eSDS was compiled in accordance with REACH legislation.

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