

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version: 1.0

Revision date: 7-Feb-24

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GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

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

1.1 Product identifiers

Product name : Iron/Iron Oxide, nanopowder
Product Number : AF00-001
Brand : Nano Hybrids
REACH No. : 01-2119457646-28-XXXX
CAS-No. : 7439-89-6 / 1317-61-9

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

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company : Nano Hybrids B.V.
Roetersstraat 35
1018WB Amsterdam
NETHERLANDS
Telephone : +31 658729987
E-mail : info@nano-hybrids.com

1.4 Emergency telephone

Emergency phone : +31
112 (Dutch alarm number)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Not a hazardous substance according to Regulation (EC) No 1272/2008.

2.2 Label elements

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

2.3 Other hazards



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

Ecological information:

The substance 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 Substance

Synonyms : Iron / Iron oxide
Formula : Fe / FeO_x
Molecular weigh : 55,85 g/mol / 159,69 g/mol
CAS-No. : 7439-89-6 / 1317-61-9
EC-No. : 231-096-4 / 215-277-5
No components need to be disclosed according to the applicable regulations.*

**A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.*

SECTION 4: First-aid measures

4.1 Description of first-aid measures

General Advice

In each of these aid measures seek medical attention (especially if symptoms or/and injury occurs).

If inhaled

Remove person from exposure source, get fresh air/supply oxygen.

In case of skin contact

Wash with flowing water for 15 minutes.

In case of eye contact

Rinse thoroughly with plenty of flowing water for 15 minutes.

If swallowed

Do not vomit.

4.2 Most important symptoms and effects, both acute and delayed



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

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

For this substance no limitations of extinguishing agents are given.

5.2 Special Hazards arising from the substance or mixture

Iron oxides.

Not combustible.

Ambient fire may liberate hazardous vapours.

5.3 Advice to firefighters

In the event of fire, wear self-contained breathing apparatus.

5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environmental precautions

No special precautionary measures necessary.

6.3 Methods and materials for containment and cleaning up

Observe possible material restrictions (see sections 7 and 10). Take up dry.

Dispose of properly. Clean up affected area. Avoid generation of dusts.



6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Work under a fume hood. Avoid generation of aerosols.

Wash hands after working with substance.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.

Take precautionary measures against static discharge.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection.

Wash hands and face after working with substance.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from moisture environment (rust formation).

Storage class

Storage class (TRGS 510): 13: Non-Combustible Solids.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters

8.2 Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Lab safety goggles/face shield

Skin protection

Nitrile/rubber gloves required

Body protection



Flame retardant antistatic protective clothing.

Respiratory protection

Required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended filter type: FPP2/FPP3,

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical/Chemical properties

a)	Physical state	Solid powder
b)	Color	Black
c)	Odor	Odorless
d)	Melting point/freezing point	No data available
e)	Initial boiling point and boiling range	No data available
f)	Flammability	No data available
g)	Flammability/explosive limits	The product is not flammable
h)	Flash point	Not applicable
i)	Autoignition temperature	No data available
j)	Decomposition temperature	No data available
k)	pH value	No data available
l)	Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
m)	Water solubility	No data available
n)	Partition coefficient	Not applicable for inorganic substances
o)	Vapor pressure	No data available
p)	Density	No data available
q)	Particle characteristics	No data available
r)	Oxidizing properties	None
s)	Explosive properties	Not classified as explosive

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability



The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Strong acids, Peroxides, Chloroformates

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicology

11.1 Information on toxicological effects

Pure

Acute toxicity

Oral: No data available

Inhalation: No data available

Dermal: No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

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



11.2 Additional Information

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

Long term inhalation exposure to iron (oxide fume or dust) can cause siderosis. Siderosis is considered to be a benign pneumoconiosis and does not normally cause significant physiologic impairment. Siderosis can be observed on x-rays with the lungs having a mottled appearance.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Other dangerous properties cannot be excluded.

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bio accumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

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

12.6 Endocrine disrupting properties

Product:



SECTION 15: Regulatory information

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

This material safety data sheet 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: Remaining information

Full text of H-Statements

Full text of other abbreviations

ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardization; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IATA - International Air Transport Association; IMDG – International Maritime Dangerous Goods; n.o.s. - Not Otherwise Specified; PBT - Persistent, Bio accumulative and Toxic substance; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SDS - Safety Data Sheet; UN- United Nations; vPvB - Very Persistent and Very Bio accumulative

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

