

SAFETY DATA SHEET

Section 1: Product and Company Identification

Product Name: Magnetite Nanopowder (Fe_3O_4)

Product ID: IONP-0-30

Manufacturer/Supplier:

BihurCrystal S.L
Pº Mikeletegi 83, 3º local 7
20009 Donostia, Spain
+34 943041816

Identified uses:

Scientific research & development,
Laboratory chemicals,
Manufacture of substances

Section 2: Hazard(s) Identification

Signal Word: Warning



Hazard statements:

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

Precautionary statements:

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ eye protection/ face protection.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER or doctor/ physician if you feel unwell.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P501 Dispose of contents/ container to an approved waste disposal plant.

HMIS Ratings: Health: 1 Flammability: 0 Reactivity: 0

Section 3: Composition/Information on Ingredients

Chemical Name: Iron(II,III) oxide, magnetite

Molecular Formula: Fe₃O₄

Content: 100%

CAS Number: 1317-61-9

EINECS: 215-277-5

Section 4: First-Aid Measures

General Advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Inhalation: Remove victim to fresh air. If not breathing, give artificial respiration. Seek immediate medical attention.

Ingestion: Rinse mouth with water. Never induce vomiting or give anything by mouth to an unconscious person. Seek immediate medical attention.

Skin: Wash skin thoroughly with mild soap and water. Rinse thoroughly. Seek immediate medical attention.

Eyes: Flush eyes with water, blinking often for several minutes.. Remove contact lenses if present and easy to do. Continue rinsing. Seek immediate medical advice.

Section 5: Fire-Fighting Measures

Flammability: Non-flammable, except as powder

Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

Spec. Fire Fighting Procedure: Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes.

Section 6: Accidental Release Measures

If Material Is Released/Spilled: Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust.

Environmental Precautions: Do not let product enter drains.

Section 7: Handling and Storage

Handling Conditions: Avoid contact with skin and eyes. Wash thoroughly after handling. Avoid formation of dust and aerosols.

Storage Conditions: Keep container tightly closed in a dry and well-ventilated place.

Work/Hygienic Maintenance: Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air

Ventilation: Provide sufficient ventilation to maintain concentration at or below threshold limit.

Section 8: Exposure Controls/Personal Protection

Permissible Exposure Limits: Contains no substances with occupational exposure limit values.

Special Equipment: None

Respiratory Protection: Full face respirators with minimum N100 grade cartridges if there is any risk of exposure to the dust. For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Protective Gloves: For any handling steps where the substance is in particulate form or in a suspension with pure water where the substance is not solubilized, the gloves must be comprised of material that successfully passes ASTM F-1671. For any handling steps where the substance is part of a carrier liquid, other than the aqueous suspension noted in the previous paragraph, gloves must be comprised of material that successfully passes ASTM F-739 (continuous liquid contact method). Gloves must be changed before they show degradation and before the designated breakthrough time for the carrier liquid (as determined by the ASTM F-739 testing or by the manufacturer). Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye Protection: Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Body Protection: Protective work clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Wear close-toed shoes and long sleeves/pants.

Section 9: Physical and Chemical Properties

Color: Black

Form: Powder, Granules, Pellets, Sputtering target, Custom parts

Odor: N/A

Water solubility: Insoluble

Boiling Point: N/A

Melting Point: 1538 °C

Flash Point: N/A

Autoignition Temperature: N/A

Density: 5.2 g/cc

Molecular weight: 231.53 g/mol

Section 10: Stability and Reactivity

Stability: Stable under recommended storage conditions

Reacts With: N/A

Incompatible Conditions: Strong oxidizing agents

Hazardous Decomposition Products: N/A

Section 11: Toxicological Information

Potential Health Effects:

Eyes: N/A

Skin: N/A

Ingestion: N/A

Inhalation: N/A

Signs & Symptoms: N/A

Aggravated Medical Conditions: N/A

Median Lethal Dose: N/A

Carcinogen: N/A

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

Section 12: Ecological Information

Aquatic Toxicity: N/A

Toxicity: N/A

Very Persistent, Very Bioaccumulative: N/A

Notes: N/A

Section 13: Disposal Considerations

Dispose of in accordance with local, state, national, and international regulations

Section 14: Transportation Data

Hazardous: Not dangerous goods

Hazard Class: N/A

Packing Group: N/A

UN Number: N/A

Proper Shipping Name: N/A

Section 15: Regulatory Information

Sec 302 Extremely Hazardous: No

Sec 304 Reportable Quantities: N/A

Sec 313 Toxic Chemicals: No

Section 16: Other 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. BihurCrystal shall not be held liable for any damage resulting from handling or from contact with the above product.