

SAFETY DATA SHEET

Date Printed: 05/13/2024 Date Revised: 01/15/2022

SECTION 1. IDENTIFICATION

Product Identifier: (2N) 99% Iron Hydroxide Oxide Nanopowder

Product Code: FE-OOH-02-NP

CAS Number: 20344-49-4

Relevant identified uses of the substance: Scientific research and development

Supplier details:

American Elements 10884 Weyburn Ave. Los Angeles, CA 90024 Tel: +1 310-208-0551 Fax: +1 310-208-0351 Emergency telephone number: +1 800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Not a hazardous substance or mixture.
2.2 GHS Label elements, including precautionary statements
Not a hazardous substance or mixture.
2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures No components need to be disclosed according to the applicable regulations

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measuresIf inhaledIf breathed in, move person into fresh air. If not breathing, give artificial respiration.In case of skin contact

Wash off with soap and plenty of water.
In case of eye contact
Flush eyes with water as a precaution.
If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water.
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 water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
5.2 Special hazards arising from the substance or mixture
Iron oxides
5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.
5.4 Further information
No data available

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures Avoid breathing vapors, mist or gas.
For personal protection see section 8.
6.2 Environmental precautions No special environmental precautions required.
6.3 Methods and materials for containment and cleaning up Keep in suitable, closed containers for disposal.
6.4 Reference to other sections For disposal see section 13.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling
For precautions see section 2.2.
7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place.
Recommended storage temperature 2 - 8 °C
Do not freeze.
Storage class (TRGS 510): Non Combustible Liquids
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

Contains no substances with occupational exposure limit values. 8.2 Exposure controls Appropriate engineering controls General industrial hygiene practice. 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). Skin protection 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. **Body Protection** impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Respiratory protection Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU ΕN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Control of environmental exposure

No special environmental precautions required.

8.1 Control parameters

Components with workplace control parameters

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties a) Appearance Form: liquid Colour: brown b) Odor No data available c) Odor Threshold No data available d) pH No data available e) Melting point/freezing point Melting point/range: < 0 °C (< 32 °F) f) Initial boiling point and boiling range > 100 °C (> 212 °F) g) Flash point No data available h) Evaporation rate No data available i) Flammability (solid, gas) No data available i) Upper/lower flammability or explosive limits No data available k) Vapor pressure No data available

I) Vapor density No data available m) Relative density 1.19 g/cm3 n) Water solubility No data available o) Partition coefficient: noctanol/ water No data available p) Auto-ignition temperature No data available q) Decomposition temperature No data available r) Viscosity No data available s) Explosive properties No data available t) Oxidizing properties No data available 9.2 Other safety information No data available

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity
No data available
10.2 Chemical stability
Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions
No data available
10.4 Conditions to avoid
No data available
10.5 Incompatible materials
Strong oxidizing agents
10.6 Hazardous decomposition products
Other decomposition products - No data available
In the event of fire: see section 5

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects Acute toxicity No data available Inhalation: No data available Dermal: No data available No data available Skin corrosion/irritation No data available Serious eye damage/eye irritation No data available Respiratory or skin sensitisation No data available Germ cell mutagenicity No data available Carcinogenicity IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. Reproductive toxicity No data available 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 Additional Information **RTECS:** Not available To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity
No data available
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:
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
12.6 Other adverse effects
No data available

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methodsProductOffer surplus and non-recyclable solutions to a licensed disposal company.Contaminated packagingDispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

DOT (US) Not dangerous goods

SECTION 15. REGULATORY INFORMATION

SARA 302 Components No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302. SARA 313 Components This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313. SARA 311/312 Hazards No SARA Hazards Massachusetts Right To Know Components No components are subject to the Massachusetts Right to Know Act. Pennsylvania Right To Know Components Water CAS-No. 7732-18-5 **Revision Date** Iron oxide hydroxide 11115-92-7 New Jersey Right To Know Components Water CAS-No. 7732-18-5 **Revision Date** Iron oxide hydroxide 11115-92-7 California Prop. 65 Components This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). 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. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.