MATERIAL SAFETY DATA SHEET

Synthetic-Oxides.com

HANDLING INSTRUCTIONS

Important:	Product degrades when exposed to air by adsorbing atmospheric humidity. Do not break vial seal until ready to use product. Reseal unused product. Product dissolves in water, with smaller grain sizes 100% dissolving in <24 hours, and larger grain sizes only partially dissolving in same timeframe.

PRODUCT IDENTIFICATION

Product Name:	Nanoporous Micron Anhydrous Ferric Oxide
Synonyms:	Nanoporous Ferric Oxide, Nanoporous Iron (III) Oxide, Nanoporous Iron Sesquioxide, Nanoporous Ferric Sesquioxide, Nanoporous Fe^2O^3
CAS | EINECS:	#1309-37-1 | #215-168-2
Company:	Synthetic-Oxides LLC | 3400 Sterling Ave | Alexandria, VA 22304 | 202.716.9400
Emergency #:	CHEMTREC® Inside USA = 800.424.9100 | Outside USA = 001.703.527.3887

PHYSICAL CHARACTERISTICS

Molecular Weight:	159.6922
Melting Point:	1565 degrees Celsius, 2849 degrees Fahrenheit
Purity:	+/- 99% (per precursor MSDS)
Color:	Tan, Dark Red or Brown
Grain Size:	Tan +/- 5.0µ to 7.5µ | Dark Red +/- 7.5µ to 12.5µ | Brown +/- 12.5 to 16.5µ
Surface Area:	Tan +/- 30-70m2/gm | Dark Red +/- 70-130m2/gm | Brown +/- 130-200m2/gm
Pore Architecture:	Nanoporous
Pore Size:	Tan unknown | Dark Red unknown | Brown 10% <2.4µm, 50% <14 µm, 90% <30µm

HAZARD IDENTIFICATION

Classification:	Classification according to [US] OSHA (29 CFR 1910.1200, 2024) | Not considered hazardous by US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200).
Chem Reaction:	Reacts with carbon monoxide, creating an explosion hazard.
Combustion:	Not combustible. In case of fire in surroundings, use appropriate extinguishing media.
Inhalation:	Avoid inhaling powder dust. Hood fan recommended for powder dust management. Prolonged inhalation of dust particles may cause lung siderosis, a benign condition.
Skin Contact:	Personal safety equipment recommended. Avoid skin contact. In event of skin contact, rinse area(s) of skin contacted thoroughly with water for several minutes. Seek medical attention if rash or other symptoms develop.

Eye Contact:	Safety goggles recommended. Avoid eye contact. In event of eye contact, rinse eyes thoroughly with water for several minutes. Then seek medical attention.
HNOC:	For hazards not otherwise classified (HNOC), none identified.

EXPOSURE CONTROLS

ACGIH TLV:	American Conference of Governmental Industrial Hygienists - TWA: 5 mg/m3
OSHA PEL:	Occupational Safety and Health Administration - (Vacated) TWA: 10 mg/m3, (Vacated) TWA: 5 mg/m3, TWA: 10 mg/m3, TWA: 15 mg/m3, TWA: 5 mg/m3
NIOSH:	IDLH: 2500 mg/m3, REL = 5 mg/m3 (TWA)
Mexico OEL:	TWA: 5 mg/m3

REGULATORY CONTROLS

SARA 313:	This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.
SARA 311/312:	Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.
CERCLA:	This product does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.
CA Proposition 65:	This product does not contain any California Proposition 65 chemicals.
USDOT:	RQ (Reportable Quantity) = No, DOT Marine Pollutant = No
USDHS:	This product does not contain any DHS chemicals.

STORAGE & EXPIRATION

STORAGE:	For best results, minimize both the length of each time vial is opened + frequency with which vial is opened. Immediately reseal any remaining unused product in original product vial.
EXPIRATION:	This product will last indefinitely provided exposure to open air is minimized. For best storage results, add argon gas (like Bloxygen®) prior to resealing product vial.

OTHER

Disclaimer:	Product information provided in this Material Safety Data Sheet is correct to the best of our knowledge as of July 2026,and is designed only as a guide for safe use and handling of this product. No warranties are herein made, either expressed or implied.