

MATERIAL SAFETY DATA SHEET

LANXESS

Energizing Chemistry

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1. Product and Company Identification

Product Name: BAYFERROX 110 PIGMENT
Material Number: 3352017
Chemical Family: Inorganic Metal Oxide
Color Index Name: Pigment Red 101
Synonyms: Iron (III) Oxide
Formula: Fe₂O₃

2. Hazards Identification

Emergency Overview

Color: Red Form: solid Powder Odor: Odorless.
Product poses little or no hazard if spilled. May cause mechanical irritation (abrasion).

Potential Health Effects

Primary Routes of Entry: Inhalation, Skin Contact, Eye Contact, Ingestion

Medical Conditions Aggravated by Exposure: Respiratory disorders

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

Inhalation

Acute Inhalation

For Component: Iron (III) Oxide
May cause mechanical irritation.

For Component: Amorphous Silica

May cause mechanical irritation.

Chronic Inhalation

For Component: Amorphous Silica

Prolonged inhalation of amorphous silica may produce x-ray changes in the lungs without disability.

Skin

Acute Skin

For Component: Iron (III) Oxide
May cause mechanical irritation.

Eye

Acute Eye

For Component: Iron (III) Oxide
May cause mechanical irritation.

For Component: Amorphous Silica
May cause mechanical irritation.

Other Effects of Exposure

For Component: Iron (III) Oxide

Prolonged inhalation (6 to 10 years) of iron oxide fume has been reported to produce changes in lung x-rays of exposed individuals. This condition, siderosis, is considered to be a benign pneumoconiosis that exhibits no adverse health effects. Siderosis has been observed among occupations such as arc-welders where iron oxide fumes are present. To the best of our knowledge, this condition has not been observed after prolonged exposure to iron oxide pigments.

Carcinogenicity:

No Carcinogenic substances as defined by IARC, NTP and/or OSHA

3. Composition/Information on Ingredients

<u>Hazardous Components</u>	<u>Weight %</u>	<u>Components</u>	<u>CAS-No.</u>
	>=95%	Iron (III) Oxide	1309-37-1
	1 - 5%	Amorphous Silica	7631-86-9

4. First Aid Measures

Eye Contact
In case of contact, flush eyes with plenty of lukewarm water. Get medical attention if irritation develops.

Skin Contact
In case of skin contact, wash affected areas with soap and water.

Inhalation
If inhaled, remove to fresh air. Get medical attention if irritation develops.

Ingestion
If ingested, do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

5. Fire-Fighting Measures

Suitable Extinguishing Media: Material is not combustible. Use extinguishing media suitable for

other combustible materials in the area.

Special Fire Fighting Procedures

Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes.

6. Accidental release measures

Spill and Leak Procedures

Spills should be swept up and placed in appropriate containers for disposal. Clean up promptly by scoop or vacuum. Avoid creating dusty conditions.

7. Handling and Storage

Storage Period

Unlimited in tightly closed containers.

Handling/Storage Precautions

Handle in accordance with good industrial hygiene and safety practices. Wash thoroughly after handling. Keep container closed when not in use. Avoid breathing dust.

Further Info on Storage Conditions

Material can be stored safely at ambient temperatures.

8. Exposure Controls/ Personal Protection

Iron (III) Oxide (1309-37-1)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 5 mg/m³ as Fe (Dust and fume.)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 10 mg/m³ (Fume.)

US. ACGIH Threshold Limit Values

Hazard Designation: Group A4 Not classifiable as a human carcinogen.

Amorphous Silica (7631-86-9)

US. OSHA Table Z-2 (29 CFR 1910.1000)

Time Weighted Average (TWA): 80 mg/m³ (Divide 80 mg/m³ by % SiO₂ determined from air sample analysis to obtain the PEL.)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 10 mg/m³

Industrial Hygiene/Ventilation Measures

Under normal conditions of use, special ventilation is not required.

Respiratory Protection

The following respirator is recommended if airborne concentrations exceed the appropriate standard/guideline., NIOSH approved, air-purifying particulate respirator with N-95 filters.

Eye Protection

safety glasses.

Skin and body protection

No special skin protection requirements during normal handling and use.

Additional Protective Measures

Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product.

9. Physical and chemical properties

Form:	solid
Appearance:	Powder
Color:	Red
Odor:	Odorless
pH:	4 - 8 @ 50 g/l
Melting Point:	Begins at 1,000 °C (1,832 °F)
Flash Point:	not applicable
Lower Explosion Limit:	Not Established
Upper Explosion Limit:	Not Established
Vapor Pressure:	not applicable
Specific Gravity:	4 - 5 @ 20 °C (68 °F)
Solubility in Water:	Insoluble
Autoignition Temperature:	Not Applicable
Viscosity, Dynamic:	not applicable
Bulk Density:	300 - 1,000 kg/m ³

10. Stability and Reactivity

Hazardous Reactions

Hazardous polymerization does not occur.

Stability

Stable

Materials to avoid

None known.

Hazardous decomposition products

None known.

11. Toxicological Information

Toxicity Data for Iron (III) Oxide

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Acute dermal toxicity

LD50: 5,500 mg/kg (Rat)

Skin Irritation

rabbit, Acute Dermal Irritation, Exposure Time: 24 hrs, Non-irritating