



PT. *BEHRINDOTAMA BUANA*

Supplier of Industrial & Specialty Chemicals

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Material Safety Data Sheet

According to 91/155/EEC and ISO 11014-1

Section 1 - Chemical Product

Product Name: Iron Oxide Black

Section 2 - Composition/Data on Components

Chemical Characterization:

Synthetic Iron Oxide Fe₃O₄, C.I. Pigment Black 11

CAS No.: 1317-61-9

Dangerous Components:

None

Section 3 - Hazards Identification

Emergency Overview: May cause mechanical irritation to the eyes, skin and respiratory tract; Irritating gases/fumes may be given off during burning or thermal decomposition.

HMS Codes: H=0, F=0, R=0, P=0 (0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe).

Eyes: Non-irritating to eyes. Excessive exposure to airborne dust may cause visibility reduction and/or unpleasant deposits.

Skin: Non-irritating and not cause allergic reaction to skin. Injury to the skin or mucus membranes can directly occur by mechanical action.

Other Effects: unknown.

No other hazards in normal industrial use, no other harmful effects observed.

The product is not a substance subject to mandatory marking in accordance with the EEC Directive 67/584/EEC or amendments.

Section 4 - First Aid Measures

First aid for eyes: Immediately flush eyes with running water for at least 15 minutes, holding eyelids open; Get medical attention if irritation occurs.

First aid for skin: In case of skin contact, immediately wash skin with plenty of running water and mild soap. Get medical attention if irritation occurs.

First aid for inhalation: Remove the sufferer from dusty area to fresh air. If not breathing, give artificial respiration. Get medical attention.

Section 5 - Fire Fighting Measures

Flash Point: Not combustible.

Auto-ignition Temperature: No data available.

Flammable Limits:

Lower Explosive Limit (LEL): NA

Upper Explosive Limit (UEL): NA

Extinguishing Media:

There is no restriction on the type of extinguisher which may be used. Use extinguishing media suitable for surrounding area, such as water, foam, CO₂, dry chemical.

Fire Fighting Instructions:

In the event of fire, firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes and smoke inhalation.

Unusual Fire and Explosion Hazards: Not combustible.

Section 6 - Accidental Release Measures

Small Spillage: Wearing suitable protective equipment, vacuum or scoop the spilled solid into an appropriately marked container for reuse or disposal. Avoid making extensive dust.

Large Spillage: Wearing suitable protective equipment, collect the spilled solid into an appropriately marked container for reuse or disposal avoiding raising dust. Flush polluted area and collect sewage for disposal according to local or international regulations. Prevent the sewage entering into waterways, sewers or surface drainage system.

Environmental Precautions:

Take precautions to prevent pollutant source entering into waterways, sewers or surface drainage system.

Section 7 - Handling and Storage

Safe Storage:

Use suitable containers and make all containers clearly labeled and securely sealed. Store in a cool, dry area away from excessive heat or flame sources

Safe Handling:

Avoid ingestion, inhalation, skin and eye contact. Minimize generation and accumulation of dust.

Protection against Fire and Explosion: The product is non-flammable.

Flammability Class: Not applicable.

Section 8 - Exposure Controls/Personal Protection

Components with Workplace-Related Limits to be Monitored:

| <u>Designation</u> | <u>%</u> | <u>Type of data</u> | <u>Unit</u> |
|--------------------|----------|----------------------|---|
| Nuisance dust | 100 | MAK TLV/TWA (USA) | 6 mg/m ³ 10 mg/m ³ |

Additional Protective Measures: Washing facilities should be available. Employees should wash their hands and faces before eating, drinking or using tobacco products.

Respiratory Protection Requirements: An appropriate dust filter has to be used.

Eye Protection Requirements: Goggles are recommended.

Skin Protection Requirements: Rubber, cloth or plastic gloves and protective clothing are recommended to reduce skin contact with the powder.

Section 9 - Physical and Chemical Properties

Appearance: Black powder.

Odor: Odorless.

Boiling Point: NA.

Melting Point: NA.

Specific Gravity (H₂O=1): 4.5 - 5.0.

Vapor Pressure (mm/Hg): NA.

Vapor Density (Air=1): NA.

Evaporation Rate (Butyl Acetate=1): NA.

Solubility in Water: Insoluble.

Flash Point: Not flammable.

Explosive Properties: Not explosive.

Section 10 - Stability and Reactivity

Stability: Stable under ordinary conditions of use and storage.

Conditions to Avoid:

Temperatures above 131°F can cause this product to become unstable and slowly auto-oxidize to Fe₂O₃ which generates additional heat. Under certain conditions, the heat may be sufficient to cause combustible materials to ignite.

Incompatibility (materials to avoid): None known.

Hazardous Decomposition or Byproducts: None known.

Hazardous Polymerization: Will not occur.

Instability Conditions: None known.

Section 11 - Toxicological Information

Acute Toxicity: LD50/oral/rat: Not tested.
LD50/inhal /rat: Not tested.

Sensitizing: None expected.

Primary Skin Irritation/rabbit: No data available.

Section 12 - Ecological Information

Mobility: No data available.

Degradability: No data available.

Accumulation: No data available.

Ecotoxicity: No data available.

Other adverse effects: No data available.

Section 13 - Disposal Considerations

Waste Treatment Methods:

Waste should be disposed in according with local and national environmental control regulations.

Contaminated Packaging and Containers:

Contaminated packaging and contaminated empty containers must be disposed as chemical waste.

Section 14 - Transport Information

International:

Land transport (ADR/RID/GGVS/GGVE): Not Regulated.

Sea transport (IMDG/GGV See UN-No.): Not Regulated.

Air transport (ICAO/IATA UN/ID-No.): Not Regulated.

U.S. (D.O.T. Classification): Not Regulated.

CANADA (Transport of dangerous goods): Not Regulated.

DOT Shipping Name: None.

Technical Shipping Name: Inorganic Oxide.

DOT Hazardous Classification: Non-Regulated. This product is not classed as a dangerous substance under the classification, Packaging and Labeling of Dangerous Goods Act.

DOT Hazard Class: Non-Regulated.

DOT Identification Number: None.

DOT Labels required: None.

DOT Placards required: None. No specific transportation precautions required.

UN Class: None.

UN/NA Number: None.

Section 15 - Regulatory Information

The product is not a substance subject to mandatory marking in accordance with the EEC Directive 67/548/EEC or amendments.

Water Risk Class: WGK 0 (Self-assessment, acc. to §§7a 19, 19a-1 of German Water Utilization Act (WHG)).