



Bichromatic Magnetic Powder

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)
Issue date: 5/7/2025 Version: 1.0

SECTION 1 Identification

1.1. Product identifier

Product form : Mixture
Trade name : Bichromatic Magnetic Powder
Product code : 1003951

1.2. Other means of identification

Other means of identification : Sub #s 1-0097, 1-0165, 1-0165A, 1-0165P, 1-0175, 1-0175P, 1-0178, 1-0306

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Latent fingerprint powder

1.4. Supplier's details

Supplier
Safariland LLC
13386 International Parkway
Jacksonville, FL 32218
USA
T (800) 347-1200

1.5. Emergency phone number

Emergency number : For Hazardous Materials or Dangerous Goods Incident Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night: 1-800-424-9300 (Toll Free, USA) / 703-527-3887 (Virginia, USA)
CCN 6410
Back-up Emergency Number: +1-703-527-3887 (Washington, DC)

SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

GHS US classification

Combustible dust

May form combustible dust concentrations in air [if small particles are generated during further processing, handling or by other means.].

Full text of H-statements: see section 16

2.2. Label elements

GHS US labelling

Signal word (GHS US) : Warning
Hazard statements (GHS US) : May form combustible dust concentrations in air [if small particles are generated during further processing, handling or by other means.]

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

No additional information available

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2.5. Unknown acute toxicity

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Iron	CAS-No.: 7439-89-6	80 – 90	Comb. Dust 1
Carbon Black	CAS-No.: 1333-86-4	10 – 20	Comb. Dust 1

Full text of hazard classes and H-statements : see section 16

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	: First aider: Pay attention to self-protection. Never give anything by mouth to an unconscious person. Give artificial respiration if necessary. Induce artificial respiration with mask fitted with one-way valve or other suitable device but not mouth-to-mouth. If you feel unwell, seek medical advice.
First-aid measures after inhalation	: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If the victim is unconscious : Lay in a stable manner on victim's side. Induce artificial respiration with mask fitted with one-way valve or other suitable device; not mouth-to-mouth. If experiencing respiratory symptoms: Call a poison center or a doctor.
First-aid measures after skin contact	: Wash skin with plenty of water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
First-aid measures after eye contact	: Rinse eyes with water as a precaution. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	: Dust of the product, if present, may cause respiratory irritation after excessive inhalation exposure.
Symptoms/effects after skin contact	: Dust may cause irritation in skin folds or by contact in combination with tight clothing.
Symptoms/effects after eye contact	: Dust from this product may cause eye irritation.
Symptoms/effects after ingestion	: Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment	: Treat symptomatically.
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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire. Water spray. Dry powder. Foam.
Unsuitable extinguishing media	: Do not use a heavy water stream. In molten state: reacts violently with water (moisture).

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5.2. Specific hazards arising from the chemical

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| Fire hazard | : May form combustible dust concentrations in air. |
| Reactivity in case of fire | : In molten state: reacts violently with water (moisture). |
| Hazardous decomposition products in case of fire | : Toxic fumes may be released. Metallic oxides. Carbon dioxide. Carbon monoxide. Sulfur oxide. |

5.3. Special protective equipment and precautions for fire-fighters

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| Firefighting instructions | : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. Move containers from fire area if it can be done without personal risk. Use water spray or fog for cooling exposed containers. Prevent fire fighting water from entering the environment. |
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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| General measures | : Avoid all personal contact including breathing in the dust. Do not take actions involving personal risks. Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. |
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For non-emergency personnel

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| Protective equipment | : Wear recommended personal protective equipment. |
| Emergency procedures | : Evacuate area. If outdoors, move to an area upwind of the danger area. If possible without taking personal risks, remove ignition sources, ventilate area. Prevent other non-emergency personnel from entering the danger area. |

For emergency responders

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| Protective equipment | : Wear the recommended personal protective equipment. Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
| Emergency procedures | : Evacuate unnecessary personnel. Stop leak if safe to do so. Use only non-sparking tools. |
| Environmental precautions | : Do not let the product reach soil, drains, sewers, or surface and ground water. |

6.2. Methods and materials for containment and cleaning up

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| For containment | : Using a clean shovel, put the material in a dry container and cover without compressing it. |
| Methods for cleaning up | : Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Minimise generation of dust. Decontaminate surfaces and equipment with water and detergent. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations. |

For further information refer to section 8: "Exposure controls/personal protection", For further information refer to section 13

SECTION 7 Handling and storage

7.1. Precautions for safe handling

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| Precautions for safe handling | : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid dust formation. Avoid contact with skin, eyes and clothing. Avoid breathing dust. Take precautionary measures against static discharge. |
| Hygiene measures | : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. |
| Additional hazards when processed | : May form combustible dust concentrations in air. |

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7.2. Conditions for safe storage, including incompatibilities

Technical measures	: Keep in a cool, well-ventilated place away from heat.
Storage conditions	: Store in a cool, dry and well-ventilated area away from incompatible substances. Keep container tightly closed.
Incompatible materials	: Strong oxidizing agents.
Specific end uses	: Latent fingerprint powder.
Packaging materials	: Store always product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

Carbon Black (1333-86-4)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Carbon black
ACGIH OEL TWA	3 mg/m³ (I - Inhalable particulate matter)
Remark (ACGIH)	TLV® Basis: Bronchitis. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)
Regulatory reference	ACGIH 2025
USA - OSHA - Occupational Exposure Limits	
Local name	Carbon black
OSHA PEL TWA	3.5 mg/m³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - NIOSH - Occupational Exposure Limits	
Local name	Carbon black
NIOSH REL 10h TWA	3.5 mg/m³ (without PAHs)
Remark (NIOSH)	When PAHs are present, NIOSH considers carbon black to be a potential occupational carcinogen
Regulatory reference (US-NIOSH)	OSHA Annotated Table Z-1 (NIOSH Pocket Guide to Chemical Hazards (NPG))

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station. Use general ventilation, local exhaust ventilation, or process enclosure to keep the airborne concentrations below the permissible exposure limits. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Environmental exposure controls	: Avoid release to the environment. Take measures to reduce or limit air emissions and releases to soil and the aquatic environment.

8.3. Individual protection measures, such as personal protective equipment

Personal protective equipment:

Personal protective equipment should be chosen according to national standards and in discussion with the supplier of the protective equipment. Wear recommended personal protective equipment.

Hand protection:

Wear protective gloves

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Eye protection:
Safety glasses. Where excessive dust may result, wear goggles
Skin and body protection:
Long sleeved protective clothing
Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. In case of emergency: Positive pressure self-contained breathing apparatus (SCBA)

Personal protective equipment symbol(s):



SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Solid
Appearance	: Powder.
Colour	: Silver Black Metallic
Odour	: No data available
Odour threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20°C	: No data available
Relative density	: 3
Solubility	: insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Explosive limits	: Not applicable
Particle characteristics	: No data available

Iron	
Particle characteristics	No data available

Carbon Black	
Particle characteristics	No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

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SECTION 10 Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid dust formation. Heat. No flames, no sparks. Eliminate all sources of ignition. Incompatible materials.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition generates: Metallic oxides. Carbon dioxide. Carbon monoxide. Sulfur oxide.

SECTION 11 Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Iron (7439-89-6)

LD50 oral rat	98.6 g/kg
ATE US (oral)	98600 mg/kg bodyweight

Carbon Black (1333-86-4)

LD50 dermal rabbit	> 2000 mg/kg bodyweight
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Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Carbon Black (1333-86-4)

IARC group	2B - Possibly carcinogenic to humans
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Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

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Carbon Black (1333-86-4)	
LOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.0071 mg/l air
NOAEL (oral, rat, 90 days)	> 1000 mg/kg bodyweight
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.0011 mg/l air

Aspiration hazard : Not classified

Bichromatic Magnetic Powder	
Viscosity, kinematic	Not applicable

Iron (7439-89-6)	
Viscosity, kinematic	No data available

Carbon Black (1333-86-4)	
Viscosity, kinematic	No data available

Symptoms/effects after inhalation : Dust of the product, if present, may cause respiratory irritation after excessive inhalation exposure.

Symptoms/effects after skin contact : Dust may cause irritation in skin folds or by contact in combination with tight clothing.

Symptoms/effects after eye contact : Dust from this product may cause eye irritation.

Symptoms/effects after ingestion : Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

SECTION 12 Ecological information

12.1. Ecotoxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

Iron (7439-89-6)	
LC50 - Fish [1]	8.65 mg/l
LC50 - Other aquatic organisms [1]	106.3 mg/l
EC50 - Crustacea [1]	> 100 mg/l
EC50 - Crustacea [2]	> 10000 mg/l
EC50 72h - Algae [1]	18 mg/l

Carbon Black (1333-86-4)	
EC50 - Crustacea [1]	> 1000 mg/l

12.2. Persistence and degradability

Bichromatic Magnetic Powder	
Persistence and degradability	Not rapidly degradable

Iron (7439-89-6)	
Persistence and degradability	Not rapidly degradable

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Carbon Black (1333-86-4)

Persistence and degradability	Not rapidly degradable
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12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone	: Not classified
Fluorinated greenhouse gases	: No

SECTION 13 Disposal considerations

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Comply with applicable regulations for solid waste disposal. Disposal must be done according to official regulations. Refer to all applicable national, international and local regulations or provisions.
Additional information	: Do not re-use empty containers.
Ecological waste information	: Avoid release to the environment.

SECTION 14 Transport information

In accordance with DOT / IMDG / IATA

14.1. UN Number

Not regulated for transport

14.2. UN Proper Shipping Name

Proper Shipping Name (DOT)	: Not regulated
Proper Shipping Name (IMDG)	: Not regulated
Proper Shipping Name (IATA)	: Not regulated

14.3. Transport hazard class(es)

DOT
Transport hazard class(es) (DOT) : Not regulated

IMDG
Transport hazard class(es) (IMDG) : Not regulated

IATA
Transport hazard class(es) (IATA) : Not regulated

14.4. Packing group

Packing group (DOT)	: Not regulated
Packing group (IMDG)	: Not regulated
Packing group (IATA)	: Not regulated

14.5. Environmental hazards

Other information : No supplementary information available.

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14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT

Not regulated

IMDG

Not regulated

IATA

Not regulated

SECTION 15 Regulatory information

15.1. Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Iron	7439-89-6	Present	Active	
Carbon Black	1333-86-4	Present	Active	

15.2. International regulations

CANADA

Iron (7439-89-6)

Listed on the Canadian DSL (Domestic Substances List)

Carbon Black (1333-86-4)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Iron (7439-89-6)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Carbon Black (1333-86-4)

Listed on IARC (International Agency for Research on Cancer)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. State regulations



WARNING:

This product can expose you to Carbon black (airborne, unbound particles of respirable size), which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

SECTION 16 Other Information

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

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Abbreviations and acronyms	
ACGIH	American Conference of Government Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
COD	Chemical oxygen demand (COD)
CSA	Chemical safety assessment
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
ED	Endocrine disruptor
EN	European Standard
EWC	European waste catalogue
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
Log Kow	Partition coefficient n-octanol/water (Log Kow)
Log Pow	Partition coefficient n-octanol/water (Log Pow)
MAK	maximum workplace concentration
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
N.O.S.	Not Otherwise Specified
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
OSHA	Occupational Safety Health Administration
PBT	Persistent Bioaccumulative Toxic

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Abbreviations and acronyms	
PNEC	Predicted No-Effect Concentration
PPE	Personal protection equipment
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TF	Technical function
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
TWA	Time Weighted Average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative
UFI	Unique Formula Identifier

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.