54660 Iron Powder

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1. Identification of the Substance/Mixture and of the Company/Undertaking

1. 1. Product Identifier

Product Name:	*Iron Powder*
Article No.:	*54660*
UFI:	*--*

1. 2. Relevant identified Uses of the Substance or Mixture and Uses advised against

Identified uses:

Powder metallurgie

Uses advised against:

1. 3. Details of the Supplier of the Safety Data Sheet (Producer/Importer)

Company:	*Kremer Pigmente GmbH & Co. KG*
Address:	*Hauptstr. 41-47, 88317 Aichstetten, Germany*
Tel./Fax.:	*Tel +49 7565 914480, Fax +49 7565 1606*
Internet:	*www.kremer-pigmente.com*
EMail:	*info@kremer-pigmente.com*
Importer:	*--*

1. 4. Emergency No.

Emergency No.: *+49 7565 914480 (Mon-Fri 8:00 - 17:00)*

1. 4. 2 Poison Center:

2. Hazards Identification

2. 1. Classification of the Substance or Mixture

Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)

This product does not require classification and labelling as hazardous according to CLP/GHS.

Possible Environmental Effects:

2. 2. Label Elements

Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)

No classification required according to the CLP/GHS guidelines.

Hazard designation:

Not applicable.

Signal word:

Hazard designation:

Safety designation:

Hazardous components for labelling:

2. 3. Other Hazards

Risk of dust explosion.

3. Composition/Information on Ingredients

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3. 1. Substance

3. 2. Mixture

Chemical Characterization:

Information on Components / Hazardous Ingredients:

Iron; REACH Reg. No. 01-2119462838-24-xxxx	97 %	CAS-Nr: 7439-89-6 EINECS-Nr: 231-096-4 EC-Nr:

Additional information:

4. First Aid Measures

4. 1. Description of the First Aid Measures

General information:

Seek medical attention in case of complaints.

After inhalation:

Supply fresh air and seek medical advice in case of complaints.

After skin contact:

Wash with soap and rinse with plenty of water.
If symptoms persist, consult a physician.

After eye contact:

Rinse open eye for several minutes under running water. Should irritation continue, seek medical advice.

After ingestion:

Drink 1 - 2 glasses of water. If possible, give afterwards milk to drink. Consult physician.

4. 2. Most important Symptoms and Effects, both Acute and Delayed

Symptoms:

Inhalation: coughing, shortness of breath. Iriritating to respiratory system.
Skin contact: prolonged contact may cause irritations.
Eye contact: can cause mechanical irritation.
Swallowing: may cause stomach irritation, nausea, vomiting and diarrhea.

Effects:

4. 3. Indication of any Immediate Medical Attention and special Treatment needed

Treatment:

Treat symptomatically.

5. Fire-Fighting Measures

5. 1. Extinguishing Media

Suitable extinguishing media:

Use extinguishing media for surrounding fire.
Do not extinguish metal fires with water, rather isolate and smother it.

Extinguishing powder.

Unsuitable extinguishing media:

Water with full jet.

5. 2. Special Hazards arising from the Substance or Mixture

Special hazards:

No special hazards.

5. 3. Advice for Firefighters

Protective equipment:

Wear self-contained respiratory protective device and full protective gear.

Further information:

6. Accidential Release Measures

6. 1. Personal Precautions, Protective Equipment and Emergency Procedures

Personal precautions:

Provide adequate ventilation. Keep away from sources of ignition.
Wear protective clothing.

6. 2. Environmental Precautions

Environmental precautions:

Prevent contamination of soils, drains and surface water.
May form flammable vapor-air mixture.

6. 3. Methods and Material for Containment and Cleaning Up

Methods and material:

Spillage should be cleared with vacumm equipment, protected against static electricity.

6. 4. Reference to other Sections

Protective clothing, see Section 8.
See Section 13 for information on disposal.

7. Handling and Storage

7. 1. Precautions for Safe Handling

Instructions on safe handling:

Avoid formation and deposition of dust. Provide adequate ventilation.

Hygienic measures:

Avoid contact with skin, eyes and clothing. Do not inhale dust.
Keep away from foodstuffs and drinks. Do not eat, drink or smoke during work. Wash hands before breaks and at the end of work.

7. 2. Conditions for Safe Storage, including any Incompatibilities

Storage conditions:

Store in tightly sealed containers in a dry room.
Do not store together with strong acids and oxidants.

Requirements for storage areas and containers:

Information on fire and explosion protection:

Keep away from sources of ignition.
Take measures to prevent static electricity discharge, earth/ground all equipment.
Dust explosion class 1 (Kst-value > 0 - 200 bar m/s).

Storage class:

Further Information:

7. 3. Specific End Use(s)

Further information:

No further information available.

8. Exposure Controls/Personal Protection

8. 1. Parameters to be Controlled

Parameters to be controlled (DE):

Parameters to be controlled:

Iron (CAS 7439-89-6), (CZ, TWA): 10 mg/m3
Iron (CAS 7439-89-6), (BG, SK, TWA): 6 mg/m3

Derived No-Effect Level (DNEL):

Iron (7439-89-6):
0.71 mg/kg bw/day (consumer, swallowing, long-term exposure - systemic effects)
3 mg/m3 (worker, inhalation, long-term exposure - local effects)
1.5 mg/m3 (consumer, inhalation, short-term exposure)

Predicted No-Effect Concentration (PNEC):

Additional Information:

8. 2. Exposure Controls

Technical protective measures:

Provide adequate ventilation in case of dust formation.

Personal Protection

General protective measures:

Keep away from foodstuffs and drinks. Do not eat, drink or smoke during work. Wash hands before breaks and at the end of work.

Respiratory protection:

Dust mask recommended when very dusty (with particle filter P3).

Hand protection:

Protective gloves, antistatic.

Protective glove material:

Not suitable material: gloves made of cloth

Eye protection:

Tightly fitting safety goggles (EN 166).

Body protection:

Environmental precautions:

Remove dust from the ventilation to avoid the release to air.

9. Physical and Chemical Properties

9. 1. Information on Basic Physical and Chemical Properties

Form:	*powder*
Color:	*bright gray*
Odor:	*odorless*
Odor threshold:	*not determined*
pH-Value:	*not applicable*
Melting temperature:	*1538°C (1013 hPa)*
Boiling temperature:	*2861°C (1013 hPa)*
Flash point:	*not applicable*
Evaporation rate:	*not applicable*
Flammability (solid, gas):	*not flammable*
Upper explosion limit:	*no information available*
Lower explosion limit:	*no information available*
Vapor pressure:	*not applicable*
Vapor density:	*10*
Density:	*7.87 g/cm3 (20°C)*
Solubility in water:	*insoluble*
Coefficient of variation (n-Octanol/Water):	*not applicable*
Auto-ignition temperature:	*not applicable*
Decomposition temperature:	*not applicable*
Viscosity, dynamic:	*not applicable*
Explosive properties:	*not explosive*

	Oxidizing properties:	
		not oxidizing
	Bulk density:	*2.0 - 3.0 g/cm3*
9. 2.	**Further Information**	
	Solubility in solvents:	
		Insoluble in organic solvents.
	Viscosity, kinematic:	
	Burning class:	
	Solvent content:	
	Solid content:	
	Particle size:	*100 - 300 µm*
	Other information:	
		Dust explosion class: ST1

10. Stability and Reactivity

10.1. Reactivity

Stable if used according to specifications.

10.2. Chemical Stability

Stable if used according to specifications.

10.3. Possibility of Hazardous Reactions

None if used according to specifications.

10.4. Conditions to Avoid

Conditions to avoid:

Avoid dusting near sources of ignition.

Thermal decomposition:

10.5. Imcompatible Materials

Strong acids and strong oxidizing agents.

10.6. Hazardous Decomposition Products

None if handled according to specifications.

10.7. Further Information

11. Toxicological Information

11. 1. Information on Toxicological Effects

Acute Toxicity

No toxicity expected.
The main hazard is the dust concentration in the air: the higher the concentration the greater the risk of irritating the respiratory tract or eyes.

LD50, oral:

LD50, dermal:

LC50, inhalation:

Primary effects

Irritant effect on skin:

Continuous contact can cause irritation.

Irritant effect on eyes:

Dust may irritate eyes.

Inhalation:

Can cause irritation of the respiratory system.

Ingestion:

May cause indisposition and vomiting.

Sensitization:

Non sensitizing.

Mutagenicity:

Not mutagenic (Ames-Test; OECD 471)

Reproductive toxicity:

No information available.

Carcinogenicity:

No relevant data found.

Teratogenicity:

No information available.

Specific target organ toxicity (STOT):

No relevant data found.

Additional toxicological information:

Aspiration hazard: Iron: 7500 mg/kg bw (oral, rat)

12. Ecological Information

12. 1. Aquatic Toxicity

Fish toxicity:

No negative effects.

Daphnia toxicity:

No information available.

Bacteria toxicity:

No data available.

Algae toxicity:

No information available.

12. 2. Persistency and Degradability

Inorganic substance. Biological degradability is not affected.

12. 3. Bioaccumulation

No bioaccumulation.

12. 4. Mobility

Iron and its compounds are found in the environment in the form of hydroxides. In the form of oxides they have a long-term stability.

12. 5. Results of PBT- und vPvP Assessment

Inorganic substance: does not comply with the criteria for the

classification as PBT or vPvB.

12. 6. Other Adverse Effects

Water hazard class:

Behaviour in sewage systems:

Further ecological effects:

No ecological data available.

AOX Value:

13. Disposal Considerations

13. 1. Waste Treatment Methods

Product:

Dispose of according to official national and local regulations.

European Waste Code (EWC):

Uncleaned packaging:

Dispose of according to official local regulations.

Waste Code No.:

14. Transport Information

14. 1. UN Number

ADR, IMDG, IATA

14. 2. UN Proper Shipping Name

ADR/RID:

No hazardous goods according to ADR / DOT (US) (land transportation).

IMDG/IATA:

Not hazardous goods

14. 3. Transport Hazard Classes

ADR Class:

not applicable

Hazard no.:

Classification code:

Tunnel restriction code:

IMDG Class (sea):

not applicable

Hazard no.:

EmS No.:

IATA Class:

not applicable

Hazard no.:

14. 4. Packaging Group

ADR/RID:

not applicable

IMDG:

IATA:

14. 5. Environmental Hazards

Not classified as environmentally hazardous.

14. 6. Special Precautions for User

Not classified as a dangerous good under transport regulations.

14. 7. Transportation in Bulk according to Annex II of MARPOL 73/78 and IBC-Code

not applicable

14. 8. Further Information

15. Regulatory Information

15. 1. Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture

Water hazard class:

0, not hazardous (German Regulation; Self-assessment)

Local regulations on chemical accidents:

Employment restrictions:

Restriction and prohibition of application:

Technical instructions on air quality:

15. 2. Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for this product.

15. 3. Further Information

This product is not a SEVESO substance, not a ozone-depleting substance and not a persistent organic pollutant (POP).

Listed in the following inventories:

EINECS (231-096-4), TSCA (US), AICS (AUS), DSL/NDSL (CA), PICCS (PH), KECL (KR), ENCS (JP), IECSC (CN)

16. Other Information

This product should be stored, handled and used in accordance with good hygiene practices and in conformity with any legal regulations. This information contained herein is based on the present state of knowledge and is intended to describe our product from the point of view of safety requirements. It should be therefore not be construed as guaranteeing specific properties.