47250 Furnace Black

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

1. 1. Product Identifier

Product Name:	*Furnace Black*
Article No.:	*47250*
UFI:	*--*

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

Identified uses:

Colored printing inks
Varnishes
Plastics
Special applications
Pigment
Conductivity
Reaction media

Uses advised against:

Tattoo

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)

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

Hazard designation:

Signal word:

Hazard designation:

Safety designation:

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Hazardous components for labelling:

2. 3. Other Hazards

3. Composition/Information on Ingredients

3. 1. Substance

3. 2. Mixture

Chemical Characterization: *Amorphous carbon black. Pigment Black 7, C.I. 77266*

Information on Components / Hazardous Ingredients:

Carbon Black, amorphous; REACH-Nr. 01-2119384822-32-0032	100 %	CAS-Nr: 1333-86-4 EINECS-Nr: 215-609-9 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. Consult physician if symptoms persist.

After skin contact:

Wash with soap and rinse with plenty of water.

After eye contact:

Rinse open eyes with plenty of water for at least 15 minutes.
Seek medical attention if irritation persists.

After ingestion:

Rinse mouth with plenty of water.
If symptoms persist consult physician.

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

Symptoms:

Inhalation: coughing, sneezing.

Effects:

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

Treatment:

After swallowing larger amounts of product: give active coal.

5. Fire-Fighting Measures

5. 1. Extinguishing Media

Suitable extinguishing media:

All extinguishing agents suitable.

Unsuitable extinguishing media:

Water with full jet.

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

Special hazards:

In case of fire: formation of carbon oxides, sulfur oxides and organic decomposition products.

5. 3. Advice for Firefighters

Protective equipment:

Wear self-contained respiratory protective device.

Further information:

Avoid contamination of sewage system, open water ways and ground water.
Contaminated extinguishing water and debris should be disposed of according to local regulations.

6. Accidential Release Measures

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

Personal precautions:

Wear protective clothing.
Avoid formation of dust.
Together with water product causes slippery surfaces.

6. 2. Environmental Precautions

Environmental precautions:

Prevent contamination of soils, drains and surface water.

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

Methods and material:

Take up mechanically and collect in suitable containers for disposal. Avoid dust formation.

6. 4. Reference to other Sections

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:

Do not eat or drink during work. Do not smoke.
Avoid contact with skin, eyes and clothing. Do not inhale dust.
Wash hands before breaks and after work.

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

Storage conditions:

Store in closed container and keep product dry.
Keep away from ignitable sources, heat and fire.

Requirements for storage areas and containers:

Store product in correctly labelled containers.

Information on fire and explosion protection:

Keep away from sources of ignition - do not smoke. Take measures to prevent electrostatic discharge.

Do not store together with: strong oxidants.

Do not store together with flammable products.

Carbon monoxide can be formed in closed containers or not well ventilated storage rooms.

Should repair work be necessary in the manufacturing facility (e.g. welding), the area has to be completely free from the product.

Dust explosion class 1 (Kst-value > 0 - 200 bar m/s).

Max. pressure increase: 30 - 100 b/s; Ignition energy: > 1 kJ

Storage class:

Further Information:

7. 3. Specific End Use(s)

Further information:

See Section 1.2.; no other uses provided

8. Exposure Controls/Personal Protection

8. 1. Parameters to be Controlled

Parameters to be controlled (DE):

none known

Parameters to be controlled:

Carbon Black, amorphous (CAS 1333-86-4), TWA (inhalable fraction): 3.5 mg/m3 (EH40 WEL); STEL (inhalable fraction): 7.0 mg/m3 (EH40 WEL)

Derived No-Effect Level (DNEL):

Carbon black, amorphous (1333-86-4):

2 mg/m3 (worker, inhalation)

0.5 mg/m3 (worker, inhalation, long-term exposition - systemic effects)

Predicted No-Effect Concentration (PNEC):

Additional Information:

8. 2. Exposure Controls

Technical protective measures:

Adequate ventilation to control airborne concentrations below the exposure limits.

Personal Protection

General protective measures:

Avoid contact with skin and avoid inhalation of vapour. Do not eat, drink or smoke while working.

Preventive skin protection by applying protective cream.

Respiratory protection:

Dust mask recommended when very dusty: with particle filter P2.

Hand protection:

Protective gloves

Protective glove material:

Natural rubber (NR), polyvinyl chloride (PVC), nitrile rubber (NBR).

Eye protection:

Safety glasses with protective shields (EN 166).

Body protection:

Not required.

Environmental precautions:

Suppress dust with a water spray jet.

9. Physical and Chemical Properties

9. 1. Information on Basic Physical and Chemical Properties

Form:	*powder*
Color:	*black*
Odor:	*odorless*
Odor threshold:	*no information available*
pH-Value:	*> 6.5 (50 g/l; 20°C)*
Melting temperature:	*> 3000°C*
Boiling temperature:	*> 3000°C*
Flash point:	*not applicable*
Evaporation rate:	*not applicable*
Flammability (solid, gas):	*> 45 s / > 300°C (VDI 2263)*
Upper explosion limit:	*not determined*
Lower explosion limit:	*50 g/m3 (VDI 2263)*
Vapor pressure:	*not applicable*
Vapor density:	*No information available.*
Density:	*1.7 - 1.9 g/cm3 (20°C)*
Solubility in water:	*insoluble*
Coefficient of variation (n-Octanol/Water):	*not applicable*
Auto-ignition temperature:	*> 140°C*
Decomposition temperature:	*> 400°C (VDI 2263)*

Viscosity, dynamic:

not applicable

Explosive properties:

Product is not explosive; however, an explosive dust/air mixture can be formed.

Oxidizing properties:

no information available

Bulk density: *80 - 220 kg/m3*

9. 2. Further Information

Solubility in solvents:

Viscosity, kinematic:

Burning class:

Solvent content:

Solid content:

Particle size:

Other information:

Maximum explosion pressure: 10 bar (VDI 2263)
Dust explosion class: ST1
Dust deflagration index (Kst): 30 - 100 bar.m/s
Impact sensitivity: no impact sensitive
Minimum ignition energy: > 1 kJ
Minimal ignition temperature: >600°C

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

The product is not dust explosive when delivered. The accumulation of fine dust can however increase the risk of dust explosion.
Hazardous polymerisation will not occur.

10.4. Conditions to Avoid

Conditions to avoid:

Avoid heat and sources of ignition.

Thermal decomposition:

> 400°C

10.5. Imcompatible Materials

Strong oxidizing agents.

10.6. Hazardous Decomposition Products

In case of fire: formation of carbon oxides, organic products of decomposition and sulfoxides.

10.7. Further Information

11. Toxicological Information

11. 1. Information on Hazard Classes as defined in Regulation (EC) No. 1272/2008

Acute Toxicity

LD50, oral: *> 8000 mg/kg (rat; OECD 401)*

LD50, dermal:

No information available.

LC50, inhalation:

No information available.

Primary effects

Irritant effect on skin:

Non irritating (rabbit; OECD 404)

Irritant effect on eyes:

Non-irritating to eyes (rabbit; OECD 405)

Inhalation:

No information available.

Ingestion:

No information available

Sensitization:

Non sensitizing (guinea pig; OECD 406).

Mutagenicity:

In vitro genetic-toxicity:
Ames-Test: negative (DMSO suspension with industrial carbon black).
Industrial carbon black cannot be tested in bacterial and in vitro systems (insoluble inorganic compound).
Organic solvent extracts of industrial carbon black may contain traces of polycyclic aromatic hydrocarbons (PAHs). This can result in negative and positive test results in different in-vitro testing systems.

Reproductive toxicity:

Animal studies showed no adverse effect on the fertility.

Carcinogenicity:

Oral, rat (2 years; feeding study)
Oral, mouse (2 years; feeding study)
Dermal, mouse: 12-18 months; Target organ: skin; effect: no tumors.
Evaluation: no tumors.
Rat, mouse (2 years). Exposition: Overload Effect). Target organ: lung. Effect: inflammation, fibrosis, tumors.
Target organ: lung. Effect: inflammation, hyperplasia, fibrosis.

Teratogenicity:

Not considered to be teratogenic.

Specific target organ toxicity (STOT):

Single exposure: no organospecific toxicity expected.
Repeated exposure: no organospecific toxicity expected.

Aspiration hazard

No risk of aspiration.

11. 2. Information on other Hazards

Epidemiological and clinical studies did not show any significant health hazards in workers exposed to industrial carbon black.
No increased risk of cancer observed with workers exposed to industrial carbon black.
The scientific discussions over the tumorigenic effect of insoluble, inorganic particles (fine dust) - such as carbon black - are still ongoing. According to many inhalation toxicologists, the tumors observed in the rat experiments result from a species-specific mechanism due to an overstressing of the rat lung (overload phenomena).
No corresponding finding have been found following the exposition to humans. The IARC, however, assesses the present rat studies in the Monograph 65 as sufficient evidence for the cancerogenicity of carbon black in animal studies.
According to the IARC, there is no evidence for the carcinogenic effect of carbon black for humans. The overall assessment of carbon black: "probably carcinogenic to humans" (group 2B) results from the IARC evaluation scheme.

12. Ecological Information

12. 1. Aquatic Toxicity

Fish toxicity:

LC50: > 1000 mg/l (96h, Danio rerio; OECD 203)
LC0: > 5000 mg/l (14d, Leuciscus idus)

Daphnia toxicity:

EC50: > 5600 mg/l (24h, Daphnia magna; OECD 202)

Bacteria toxicity:

EC0: > 400 g/l (3h) DEV L3 (TTC-Test)
EC10: 800 g/l (3h) DEV L3 (TTC-Test)

Algae toxicity:

EC50: > 10000 mg/l (72h, Scenedesmus subspicatus; OECD 201)
NOEC: > 10000 mg/l (72h, Scenedesmus subspicatus; OECD 201)

12. 2. Persistency and Degradability

Pigment is not soluble in water and biologically not degradable.

12. 3. Bioaccumulation

Bioaccumulation is not to be expected.

12. 4. Mobility

Weak solubility and mobility.

12. 5. Results of PBT- und vPvP Assessment

Not classified as PBT substance / Not classified as a vPvB substance.

12. 6. Endocrine Disrupting Properties

No data available.

12. 7. Other Adverse Effects

Water hazard class:

Not hazardous.

Behaviour in sewage systems:

Further ecological effects:

AOX Value:

13. Disposal Considerations

13. 1. Waste Treatment Methods

Product:

In accordance with current regulations, product may be taken to a waste disposal site or incineration plant, after consultation with site operator and/or with the responsible authority.

European Waste Code (EWC):

The waste code must be determined together with the regional disposal service.

Uncleaned packaging:

Non-contaminated packaging may be recycled.
Contaminated packaging must be disposed like the substance.

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

None

14. 6. Special Precautions for User

Not classified as a dangerous good under transport regulations.

14. 7. Maritime Transport in Bulk according to IMO Instruments

not applicable

14. 8. Further Information

Not activated carbon black of mineral origin.
No hazardous goods of classification 4.2.

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

Listed in the following inventories:
EINECS (215-609-9), TSCA (US), AICS (AUS), DSL (CA), ENCS/ISHL (JP), KECI (KR), PICCS (PH), IECSC (CN), NZIoC (NZ), PICCS (PH), CSNN (TW)

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.