

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 30.05.2012

Revision: 30.05.2012

1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
 - **Trade name: MR® 110 Magnetic powder, fluorescent, 1:1000
oil and water suspendable**
 - **CAS Number:**
1332-37-2
 - **EC number:**
215-570-8
 - **Type of packaging** bulk
 - **Relevant identified uses of the substance or mixture and uses advised against**
 - **Application of the substance / the preparation**
Magnetic powder for nondestructive surface crack detection
 - **Details of the supplier of the safety data sheet**
 - **Manufacturer/Supplier:**
MR-Chemie GmbH
Nordstr. 61-63
D-59427 Unna
Tel. +49 (0)2303/95151-0
Fax +49 (0)2303/95151-10
 - **Further information obtainable from:**
MR® Chemie GmbH, Development, Tel.: 0049-(0)2303/95151-18, QS@mr-chemie.de
 - **Emergency telephone number:**
24h- Emergency Contact Phone Number
For Chemical Emergency, Spill, Leak, Fire, Exposure or Accident
- Call Day or Night within USA and Canada: 1 800 424 9300
Outside USA and Canada: 001 703 527 3887
In-Country Emergency Number for:
- | | | |
|---------------|------------------|-------------|
| China: | 4001 204937 | (Mandarin) |
| Hong Kong: | 800 968 793 | (Cantonese) |
| India: | 000 800 100 7141 | (Hindi) |
| South Africa: | 0 800 983 611 | (English) |
- (WISAG FMO Cargo Service GmbH & CO.KG)

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
The substance is not classified according to the CLP regulation.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Not applicable.
- **Information concerning particular hazards for human and environment:**
Dust hazard.
May aggravate pre-existing respiratory conditions.
- **Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Substances**
Fluorescent magnetic powder consisting of magnetic core and organic fluorescent pigment bonded with epoxy resin

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- **CAS No. Description**
1332-37-2 Iron oxide
- **Identification number(s)** No data available.
- **EC number:** 215-570-8

4 First aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**
Product is normally used as a suspension in liquid and hence represents a low inhalation risk under normal operating conditions. However, the product as supplied may give rise to a dust hazard. Obtain dust mask.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** If large quantities are ingested obtain medical attention.
- **Information for doctor:**
Grease with skin-cream to restore fat film in order to prevent skin inflammation.
- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
In case of fire, the following can be released:
Carbon monoxide (CO)
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Use a dust mask.
- **Environmental precautions:**
Damp down dust with water spray.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
- **Reference to other sections**
No dangerous substances are released.
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

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7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Store in cool, dry place in tightly closed receptacles.
Use only in well ventilated areas.
Avoid contact with eyes.
- **Information about fire - and explosion protection:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store away from any sources of strong magnetich fields.
Condition of the tanks and stockrooms is to be co-ordinated with the responsible authorities.
Store in a cool location.
Keep receptacles tightly sealed.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
EH40/2002 Dust (8 hour TWA) Total Inhaalable Dust 10 mg/cu.m
Respirabla Dust 4 mg/cu.m
- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:**
Suitable dust masks will be required if dust build up occurs.
For good ventilation provide, this can be achieved by local or space exhaust. If the concentration lies over the job limit values, then, a certified respirator suitable for this purpose must be used.
- **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
PVC or PE gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** With danger of the eye contact closing eye protector.

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· **Body protection:** Protective work clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· Form:	Solid
· Colour:	Brown
· Odour:	Characteristic
· Odour threshold:	Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	Undetermined.

· **Flash point:** Basis: active substance

· **Flammability (solid, gaseous):** Product is not flammable.

· **Ignition temperature:**

· **Decomposition temperature:** Not determined.

· **Self-igniting:** Not determined.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

· Lower:	Not determined.
· Upper:	Not determined.

· **Vapour pressure:** Not applicable.

· **Density at 20°C:** 0.69 g/cm³

· **Relative density:** Not determined.

· **Vapour density:** Not applicable.

· **Evaporation rate:** Not applicable.

· **Solubility in / Miscibility with
water:** Insoluble.

· **Segregation coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

· **Dynamic:** Not applicable.

· **Kinematic:** Not applicable.

· **Organic solvents:** 0.0 %

· **Other information:** No further relevant information available.

10 Stability and reactivity

· **Reactivity**

· **Chemical stability**

· **Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

· **Possibility of hazardous reactions:** No dangerous reactions known.

· **Conditions to avoid:** No further relevant information available.

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- **Incompatible materials:** Strong oxidizing agents, alkalis and acids.
- **Hazardous decomposition products:** Partially pyrolysed organic residues.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:**
Longer continuous contact can lead to skin defatting and into consequence to skin irritation.
Mechanical irritant.
- **on the eye:** Dust could cause damage by mechanical actions.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.
The substance is not subject to classification according to the latest version of the EU lists.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability**
Fluorescent magnetic particles are inert and will settle from suspension.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Other information:**
Fluorescent magnetic particles are inert and insoluble having no environmental effect.
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Water hazard class 1: weakly water-endangering
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation** Smaller quantities can be disposed of with household waste.
- **Waste disposal key:**
For this product no waste key number can be specified, because only the intended purpose permits an allocation. The waste key number is to be specified in arrangement with the regional waste disposal.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

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14 Transport information

· UN-Number	Void
· ADR, ADN, IMDG, IATA	Void
· UN proper shipping name	Void
· ADR, ADN, IMDG, IATA	Void
· Transport hazard class(es)	Void
· ADR, ADN, IMDG, IATA	Void
· Class	Void
· Packing group	Void
· ADR, IMDG, IATA	Void
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	-

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **Waterhazard class:**
Water hazard class 1: slightly hazardous for water.(In accordance with classification VwVwS,appendix 4)
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Recommended restriction of use**
Existing national and local laws concerning chemicals are to be considered.
- **Department issuing MSDS:** MR® Chemie GmbH, Development
- **Contact:** MR® Chemie GmbH, Tel.: 0049(0)2303/95151-0
- **Abbreviations and acronyms:**
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
- *** Data compared to the previous version altered.**