

SAFETY DATA SHEET

according to Regulation (EC) 1907/2006 (REACH), as amended by 2020/878/EU



DIFFU - THERM[®] Magnetic-Particle-Suspension MPS - FW (Aerosol)

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

1.1. Product identifier

Trade name: Magnet-Particle-Suspension fluorescence (oil based)

Article number: MPS - FW

UFI NSUR-R145-E005-WWJT

1.2. Relevant identified uses of the substance or mixture and uses advised against

Application of the substance / the preparation

As Magnetic-Particle-Suspension at the Magnetic particle inspection
by acc. to EN ISO 9934-1 for finding surface cracks.

1.3. Details of the supplier of the safety data sheet

Manufacturer/Supplier

Helmut Klumpf

Technische Chemie GmbH & Co. KG

Industriestr. 15

D - 45699 Herten Phone.: +49(0)2366 1003 - 0 E-mail: info@diffu-therm.de

1.4. Emergency telephone number: a.m. or next Emergency phone:

2. Hazards identification

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008			
Hazard class	Category	Hazard class and category	Hazard statement
Aerosol	Category 3	--	H229

The full text of the hazard statements listed in this section can be found in section 16.

2.1. Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labeled according to the CLP regulation.

Hazard pictograms: not applicable

Signal word: Warning

Hazard statements

H229 Pressurised container: May burst if heated.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P251 Do not pierce or burn, even after use.

P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

2.3. Other hazards

not applicable

Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

Endocrine disrupting properties

Not listed.

3. Composition/information on ingredients

Chemical characterization: Aerosol: Mixture of the substances that require labeling as shown in the table and other components that do not require labeling.

Components:	Name of chemical	weight %
CAS: 124-38-9	Carbon dioxide	< 5
EINECS: 204-696-9	GHS04 Press. Gas, H280	

4. First aid measures

Description of first aid measures

General advice:

Remove any clothing contaminated with the product.

In case of accident or if you feel unwell, seek medical advice immediately.

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After inhalation

Peace, fresh air.1

After skin contact

Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.

After eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.

After swallowing

Rinse out mouth and drink 200 - 300 ml of water.

Do not induce vomiting. If symptoms persist, consult a doctor.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms:

Das Produkt ist nicht als gefährlich eingestuft gemäß der Verordnung (EG) 1272/2008 und den Änderungen

Effects

Aspiration hazard if swallowed - can enter lungs and cause damage. Aspiration may cause pulmonary oedema and pneumonitis.

4.3. Indication of any immediate medical attention and special treatment needed

Treatment: No special treatment.

5. Firefighting measures

5.1. Extinguishing media:

Suitable extinguishing media:

Water mist, water spray jet and alcohol-resistant foam.

Dry extinguishing agents, CO₂, sand and earth can only be used for small fires

Unsuitable extinguishing media:

High volume water jet

5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting:

Hazardous combustion products: Carbon monoxide, carbon dioxide (CO₂)

5.3. Advice for firefighters

In case of fire, wear self-contained breathing apparatus. Wear personal protective equipment.

Additional information's:

Cool endangered containers with a water spray.

Risk of aerosol can bursting if overheated above 50°C.

Bursting aerosol cans can be hurled away with great force in a fire

6. Accidental release measures

6.1. Personal precautions:

Not required.

6.2. Environmental precautions:

Do not allow to enter the subsoil/soil. Do not allow to enter drains/surface water/groundwater.

6.3. Methods and material for containment and cleaning up:

Not required.

6.4. Reference to other sections

See Section 8 for information on personal protective equipment.

See Section 13 for waste treatment information.

7. Handling and storage

7.1. Precautions for safe handling:

Advice on safe handling:

Ensure good ventilation/extraction at the workplace.

Avoid contact with the eyes.

Hygiene measures:

Keep away from food, drink and animal feed. Do not eat, drink or smoke in the area of application. Wash hands before breaks and at the end of work. Remove soiled clothing immediately.

7.2. Conditions for safe storage, including any incompatibilities:

Requirements for storage areas:

Store in a solvent-proof place in the original container. Store on a floor.

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Advice on protection against fire and explosion:

Risk of aerosol can bursting if overheated above 50°C.

Bursting aerosol cans can be hurled away with great force in a fire

Further information on storage conditions:

Keep tightly closed in a dry and cool place. Keep away from direct sunlight. Keep in a well-ventilated place.

Advice on common storage:

Store tightly closed in a cool, dry place.

Protect from direct sunlight. Industrial Safety Regulation, TRGS 510;

German storage class: 2B Aerosols

8. Exposure controls/personal protection

Additional advice on system design:

Not applicable

8.1. Control parameters

Not applicable

Components with critical values that require monitoring at the workplace:	
124-38-9	Carbon dioxide (< 5 %)
TRGS 900	9.100 mg/m ³ , 5.000 ml/m ³ limit max: 2(II)

8.2. Exposure controls

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures for handling chemicals must be observed. In addition to personal protective equipment, it is necessary to wear closed work clothing. is required.

Breathing equipment:

Not required.

Protection of hands:

suitable protective gloves.

The glove material has to be impermeable and resistant to the product.

Material of gloves

The selection of a suitable glove depends not only on the material, but also on other quality features and varies from manufacturer to manufacturer.

Positive experiences have been made with butyl gloves. Protective gloves should be replaced when signs of wear should be replaced. Recommended material thickness: ≥ 0.5 mm.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Safety glasses. Tightly sealed safety glasses.

Body protection: Protective work clothing.

Limitation and supervision of exposure into the environment

Make sure, that the current environmental regulations comply with that limit to discharge into air, water and ground. To protect the environment, appropriate protective measures apply to limit or prevent emissions.

9. Physical and chemical properties

9.1. General Information

Form: Aerosol

Colour: colourless - clear/brown

Smell: weak, characteristic

Data relevant for safety:

(Product without power gas)

Boiling range:

100 °C

Flash point:

non-flammable

Ignition temperature:

not applicable

Lower explosion limit:

n.a.

Upper explosion limit:

n.a.

Vapour pressure (20°C):

23 mbar

Density (20°C):

1,0 g/cm³

Solubility in water (20°C):

Fully miscible

pH value (20°C):

approx. 8

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9.2 Other information

The product is not flammable.

10. Stability and reactivity

10.1. Reactivity: This material is not reactive under normal ambient conditions.

10.2. Chemical stability: The material is stable under normal conditions.

10.3. Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

10.4. Possibility of hazardous reactions: The product is not flammable.

10.5. Incompatible materials: Oxidizing agents

10.6. Hazardous decomposition products:

Reasonably anticipated hazardous decomposition products generated during use, storage, spillage and heating are not known. Hazardous combustion products: see section 5

11. Toxicological information

11.1. Information on the hazard classes within the meaning of Regulation (EC) No. 1272/2008

The classification of risk is based on knowledge of the toxicity of the components contained in this product.

Acute toxicity: Is not to be classified as acutely toxic.

Skin corrosion/irritation:

Classification could not be made due to:

Lack of data, inconclusive data or inconclusive but insufficient data for classification.

Serious eye damage/irritation:

Shall not be classified as serious eye damage or eye irritation. (ECHA, OECD Guideline 405)

Respiratory or skin sensitisation

Skin sensitisation: Based on available data, the classification criteria are not met.

Respiratory sensitisation: Based on available data, the classification criteria are not met.

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure): Based on available data, the classification criteria are not met.

Specific target organ toxicity - repeated exposure:

Based on available data, the classification criteria are not met.

Aspiration hazard: No sensitising effect known.

Other information: Repeated exposure may cause skin dryness or cracking.

11.2. Information on other hazards:

Endocrine disrupting properties: The substance is not listed

12. Ecological information

12.1. Toxicity

Aquatic toxicity (acute):

The ready-to-use suspension can be discharged into the sewage system..

12.2. Persistence:

No further relevant information available.

12.3. Bioaccumulative potential:

Persistence: No data available.

Bioaccumulative potential: No further relevant information available.

12.4. Mobility in soil:

Not applicable.

12.5. Results of PBT and vPvB assessment:

According to the results of its assessment, this substance is not a PBT or a vPvB.

12.6. Endocrine disrupting properties:

Not listed..

12.7. Other adverse effects:

No data available. Generally not hazardous to water

13. Disposal considerations

13.1. Waste treatment methods

Product : Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not let product enter drains. Contact waste disposal services. This product shall be disposed of or recovered in compliance with Directive 2008/98/EC on waste as lastly amended.

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Contaminated Packaging	:	Container must be completely emptied and must not be opened by force. Hand over to authorized disposal agency. Dispose of it in accordance with local regulations.
European Waste Catalogue Number	:	EAV: 15 01 10 term: Iron-metal containers with a contaminated rest of the contents

14. Transport information

14.1. UN number or ID number

1950

14.2. UN proper shipping name

ADR	DRUCKGASPACKUNGEN suffocating
RID	DRUCKGASPACKUNGEN suffocating
IMDG	Aerosols suffocating
ICAO-TI und IATA-DGR	Aerosols, not flammable

14.3. Transport hazard class(es)

ADR-Class	:	2
shipment category	:	2
(Labels; Classification Code; Hazard Identification Number; Tunnel restriction code)	:	2.2; 5A; E
Labelling of the Package	:	UN 1950 AEROSOLE
Limited Quantities Only (LQ)	:	1L (Package ≤ 30 kg)
RID-Class	:	2.2; 5A
Labels; Classification Code; Hazard Identification Number	:	
Labelling of the Package	:	UN 1950 AEROSOLE
Limited Quantities Only (LQ)	:	1L (Package ≤ 30 kg)
IMDG-Class	:	2.2
(Labels; EmS)	:	F-D, S-U
Limited Quantities Only (LQ)	:	1L (Package ≤ 30 kg)
ICAO-TI und IATA-DGR	:	2.2
Labelling of the Package	:	UN 1950 AEROSOLE

14.4. Packaging group

ADR : --
RID : --
IMDG : --
IATA : --

14.5. Environmental hazards

Environmentally hazardous according to ADR : no
Environmentally hazardous according to RID : no
Marine Pollutant according to IMDG-Code : no

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

Other Information:

Observe employment restrictions under the law on the protection of mothers at work, in training and during studies (Maternity Protection Act - MuSchG).

Observe national regulations on the protection of young people in the workplace.

Directive 2012/18/EU

Named dangerous substances - ANNEX I Substance is not listed.

Drug substitutes between the Community and third countries: Not listed.

Water hazard class: Water hazard class 1 (slightly hazardous for water).

Hazardous Incident Ordinance: Not subject to the provisions of the German Hazardous Incident Ordinance.

15.2. Chemical safety assessment: For this substance a chemical safety assessment has been carried out.

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16. Other information

Full text of hazard statements in sections 2 and 3.

H229 Pressurised container: May burst if heated.

H280 Enthält Gas unter Druck; kann bei Erhitzen explodieren.

Department issuing data specification sheet:

Contact: Technische Chemie GmbH & Co. KG

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

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)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally contractual relationship.