

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

Product identifier

Trade name: Background-colour white (BS 5044, class A)

Article number: DPM

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

Application of the substance / the preparation

For the Magnetic-Particle-Suspension at the Magnetic particle inspection
 by acc. to EN ISO 9934-1 (DIN 54 132) for finding surface cracks.

Details of the supplier of the safety data sheet

Manufacturer/Supplier

Helmut Klumpf

Technische Chemie KG

Industriestr. 15

D - 45699 Herten Phone.: +49(0)2366 1003 - 0 Fax: +49(0)2366 1003 - 11 Email: klumpf@diffu-therm.de

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

2. Hazards identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour

GHS07 Exclamation mark

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE. 3 H336 May cause drowsiness or dizziness.

Labelling according to Regulation (EC) No 1272/2008

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



Hazard pictograms GHS02, GHS07

Signal word Danger

Hazard statements

H222 Extremely flammable aerosol.

H229 Pressurised container: May burst if heated.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.
 Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P405 Store locked up

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Results of PBT and PvB assessment

PBT: Not applicable **vPvB:** Not applicable

3. Composition/information on ingredients

Chemical characterization: Aerosol with mixture of substances listed below and non-hazardous additions.

Components:	Name of chemical	weight %
CAS: 67-64-1 EINECS: 200-662-2	acetone GHS02 Flam. Liq. 2, H225; GHS07 Eye Irrit. 2, H319; STOT SE 3, H336	> 50
CAS: 13463-67-7 EG-Nr: 236-675-5	titan(IV)-oxid, EUH 211	< 25
CAS: 78-93-3 EINECS: 201-159-0	2-butane GHS02 Flam. Liq. 2, H225; GHS07 Eye Irrit. 2, H319; STOT SE 3, H336	< 10



4. First aid measures

Description of first aid measures

General information Take affected persons out of danger area and instruct to lie down.

After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness bring patient into stable side position for transport.

After skin contact

Instantly wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.

After eye contact

Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.

After swallowing

Do not induce vomiting; instantly call for medical help. In case of persistent symptoms consult doctor

5. Fire fighting measures

Description of first aid measures

Suitable extinguishing agents

water haze, water spray-jet, alcohol resistant foam.
use dry extinguishers like power, sand just for small fires.

For safety reasons unsuitable extinguishing agents Water with a full water jet.

Special hazards arising from the substance or mixture Carbon monoxide (CO)

Advice for fighters

Protective equipment: Wear self-contained breathing apparatus.

Additional information:

Cool containers at risk with water spray jet.
Danger for bursting of aerosols when heated for more than 50°C.
Aerosols that burst in fire can be mightily shot away.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources
Bring persons out of danger.

Environmental precautions:

Do not allow product to reach sewage system or water bodies.
Prevent material from reaching sewage system, holes and cellars.
Inform respective authorities in case product reaches water or sewage system.
Dilute with much water. Prevent from spreading (e.g. by damming-in or oil barriers).

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.

Reference to other sections

See Section 8 for information on personal protection equipment.

7. Handling and storage

Handling:

Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.
Avoid splashes or spray in enclosed areas.
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air)
Avoid contact with eyes and skin. Avoid open fire.
Store in cool, dry place in tightly closed containers.
Keep away from heat and direct sunlight.

Information about protection against explosions and fires:

Keep ignition sources away – Do not smoke.
Protect against electrostatic charges.
Use explosion-proof apparatus/ fittings and spark-proof tools.
Use only in explosion-proof area.

Conditions for safe storage, including any incompatibilities:

Storage

Requirements to be by storerooms and containers:

- Use only containers specifically permitted for this substance/product.
- Store in cool location.
- Provide solvent resistant, sealed floor.
- Suitable material for containers and conduit: steel or stainless steel.

Information about storage in one common storage facility:

Further information about storage conditions:

- Keep container tightly sealed.
- Store in cool, dry conditions in well-sealed containers.
- Avoid contact with air / oxygen. (formation of peroxide).
- Protect from heat and direct sunlight.

Storage class: 3

8. Exposure controls/personal protection

Additional information about design for technical systems:

No other information's, see point 7.

Control parameters

Components with critical values that require monitoring at the workplace:	
67-64-1 acetone (> 50%)	
WEL	1.200 mg/m³, 500 ml/m³; 2(I); DFG, EU
78-93-3 2-butane (< 10%)	
WEL	600 mg/m³, 200 ml/m³; 1(I); DFG, EU, H, Y
13463-67-7 Titan(IV)-oxid (< 25%)	
WEL	Long term value: 1,25 10 mg/m³ 2(II); alveolar inhalable; AGS, DFG

Exposure controls

Personal protection equipment

General protective and hygienic measures

- Keep away from foodstuffs, beverages and food.
- Instantly remove any soiled and impregnated garments.
- Wash hands during breaks and at the end of the work.
- Avoid contact with the eyes and skin.

Breathing equipment:

In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.

Protection of hands: Protective gloves.

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

Eye protection: Tightly sealed safety glasses.

Body protection: Protective work clothing.

9. Physical and chemical properties

Information on basic physical and chemical properties General Information

Appearance:

Form: fluid Colour: white Smell: characteristic

Data relevant for safety:

Boiling point/Boiling range:	56 °C
Flash point:	- 19 °C
Ignition temperature:	> 350 °C
Danger of explosion:	The Product is not explosive. However, formation of explosive air/steam mixture is possible.
Critical values for explosion:	Lower e.l.: 2 Vol.%
	Upper e.l.: 12 Vol.%
Steam pressure at 20°C:	24 mbar
Density (20°C):	0,9 g/cm³
Solubility in water (20°C):	soluble (Solvent)



10. Stability and reactivity

Reactivity

Chemical stability

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

Possibility of hazardous reactions: Possible formation of peroxide.

11. Toxicological information

Information on toxicological effects

Acute Toxicity: (LD/LC₅₀-values that are relevant for classification):

Component	Method		Value
67-64-1 acetone	orally	LD 50	9.750 mg/kg (rat)
	dermal	LD 50	20.000 mg/kg (rabbit)
	inhaled	LC50/4h	120 mg/l (rat)

Primary irritant effect:

on the skin: Irritates the skin and the mucous membrane

on the eye: Irritant

12. Ecological information

Toxicity

Aquatic toxicity: No further relevant information available.

Additional ecological information:

General notes:

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

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

13. Disposal considerations

Product:

Recommendations:

Disposal must be made according the local authority regulations.

This material and / or its container must be disposed of as hazardous waste.

The product is suitable for burning in an enclosed, controlled burner suitable for fuel value or disposal by supervised incineration at very high temperatures at which it does not come to the formation of undesired inflammatory products.

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging's:

Recommendations:

Empty contaminated packaging's thoroughly. They can be recycled after thorough and proper cleaning.

Packaging's that cannot be cleaned are to be disposed of in the same manner as the product.

Empty container completely. Residues may cause an explosion.

Do not pressurize containers, cut, weld, braze, solder, drill, grind. Don not expose containers to heat, flames, sparks, static electricity or other flammable products. They may explode and cause injury or death.

14. Transport information

Land transport ADR/RID

Class: 3 UN-No.: 1224 Package Group: II

Identification: Ketones, liquid, n.o.s. (Acetone/Methylethylketon)

Classifications code: F 1 shipment category: 2 Label-no.: 3

Packing instruction: P 001, MP 19 limited of volume: 1 L Tunnel restriction code: D/E

Marine transport IMDG/GGVSee

UN-No.: 1224 Class: 3.2 Package Group: II

EMS-No.: F-E, S-D Label: 3 Marine Pollutant: no Label: --

Proper Shipping Name: Ketones, liquid, n.o.s. (Acetone/Methylethylketon)

Air transport ICAO-TI and IATA-DGR

Class/Division: 3 UN/ID-No.: 1224

Package Group: II, Label-No.: 3

Packing inst. Passenger aircraft: 305/Y305 Max. net/Package: 5 L / 1L

Packing inst. Cargo aircraft: 307 Max. net/Package: 60 L

Proper Shipping Name: Ketones, liquid, n.o.s. (Acetone/Methylethylketon)

15. Regulatory information

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

Technical instructions (air):

Class	Share in %
NK	80

Labelling according to Regulation (EC) No 1272/2008

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

Hazard statements

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

National regulations

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

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. Other information

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.

Department issuing data specification sheet:

Contact: Helmut. Klumpf Technische Chemie 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