

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 17.05.2010

Revision: 17.05.2010

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

- **Trade name:** MR® 72 LS White contrast paint
paintable and over weldable
 - **Type of packaging** Aerosol
 - **Application of the substance / the preparation** Contrast paint for magnetic particle inspection
 - **Manufacturer/Supplier:**
Hersteller:
MR-Chemie GmbH Tel. +49 (0)2303/95151-0
Nordstr. 61-63 Fax +49 (0)2303/95151-10
D-59427 Unna
 - **Further information obtainable from:**
MR® Chemie GmbH, Development, Tel.: 0049-(0)2303/95151-18, QS@mr-chemie.de
 - **Information in case of emergency:**
24h- Emergency Phone Number
- In USA 800 424 9300 (233814)
Outside USA 001 703 527 3887 (233814)

2 Hazards identification

· Hazard description:



Xi Irritant
F+ Extremely flammable

· Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.

Warning! Pressurized container.

Has a narcotizing effect.

R 12 Extremely flammable.

R 36 Irritating to eyes.

R 43 May cause sensitisation by skin contact.

R 66 Repeated exposure may cause skin dryness or cracking.

R 67 Vapours may cause drowsiness and dizziness.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C.

Do not pierce or burn, even after use.

Do not spray on a naked flame or any incandescent material.

Buildup of explosive mixtures possible without sufficient ventilation.

Keep out of the reach of children.

· Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

· GHS label elements



Danger

H222 - Extremely flammable aerosol.



Warning

H319+EUH066 - Causes serious eye irritation. Repeated exposure may cause skin dryness or cracking.

H317 - May cause an allergic skin reaction.

H336 - May cause drowsiness or dizziness.

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Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C.
 Do not pierce or burn, even after use.

Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition -
 No smoking.

Buildup of explosive mixtures possible without sufficient ventilation.

Keep out of the reach of children.

· **Prevention:**

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

P251 Pressurized container: Do not pierce or burn, even after use.

· **Response:**

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

· **Storage:**

P405 Store locked up.

P410+P412 Protect from sunlight. Do no expose to temperatures exceeding 50 °C/122 °F.

· **Disposal:**

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

3 Composition/information on ingredients

· **Chemical characterization**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 67-64-1 EINECS: 200-662-2	acetone Xi, F; R 11-36-66-67 Danger: 2.6/2 Warning: 3.3/2, 3.8/3	25-50%
CAS: 74-98-6 EINECS: 200-827-9	propane F+; R 12 Danger: 2.2/1 Warning: 2.5/C	10-25%
CAS: 106-97-8 EINECS: 203-448-7	butane F+; R 12 Danger: 2.2/1 Warning: 2.5/C	10-25%
CAS: 141-78-6 EINECS: 205-500-4	ethyl acetate Xi, F; R 11-36-66-67 Danger: 2.6/2 Warning: 3.3/2, 3.8/3	10-25%
CAS: 67-63-0 EINECS: 200-661-7	2-Propanol Xi, F; R 11-36-67 Danger: 2.6/2 Warning: 3.3/2, 3.8/3	10-25%
CAS: 97-86-9 EINECS: 202-613-0	isobutyl methacrylate Xi, N; R 10-36/37/38-43-50 Warning: 2.6/3; 4.1.A/1; 3.2/2, 3.3/2, 3.4.S/1, 3.8/3	2.5-10%

· **Propellant:** Propane-Butane

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

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4 First-aid measures

- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **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:** Not relevant - aerosol can.
- **Information for doctor:**
Grease with skin-cream to restore fat film in order to prevent skin inflammation.

5 Fire-fighting measures

- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards caused by the substance, its products of combustion or resulting gases:**
In case of fire, the following can be released:
Carbon monoxide (CO)
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Additional information:** See Section 7 for information on safe handling.

7 Handling and storage

- **Handling:**
- **Information about fire - and explosion protection:**
Do not spray onto a naked flame or any incandescent material.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, e.g. electric lights. Do not pierce or burn, even after use.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Protect from heat and direct sunlight.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

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Ingredients with limit values that require monitoring at the workplace:	
67-64-1 acetone	
IOELV (EU)	Long-term value: 1210 mg/m ³ , 500 ppm
WEL (Great Britain)	Short-term value: 3620 mg/m ³ , 1500 ppm
AGW (Germany)	Long-term value: 1210 mg/m ³ , 500 ppm 2(I);DFG
74-98-6 propane	
AGW (Germany)	Long-term value: 1800 mg/m ³ , 1000 ppm 4(II);DFG
106-97-8 butane	
WEL (Great Britain)	Short-term value: 1810 mg/m ³ , 750 ppm Long-term value: 1450 mg/m ³ , 600 ppm
AGW (Germany)	Carc (if more than 0.1% of buta-1.3-diene) Long-term value: 2400 mg/m ³ , 1000 ppm 4(II);DFG
141-78-6 ethyl acetate	
WEL (Great Britain)	Short-term value: 400 ppm Long-term value: 200 ppm
AGW (Germany)	Long-term value: 1500 mg/m ³ , 400 ppm 2(I);DFG, Y
67-63-0 2-Propanol	
WEL (Great Britain)	Short-term value: 1250 mg/m ³ , 500 ppm Long-term value: 999 mg/m ³ , 400 ppm
AGW (Germany)	Long-term value: 500 mg/m ³ , 200 ppm 2(II);DFG, Y

· **Additional information:** The lists valid during the making were used as basis.

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing
 Wash hands before breaks and at the end of work.
 Avoid contact with the eyes and skin.

· **Respiratory protection:**

Not necessary if room is well-ventilated.
 Use suitable respiratory protective device in case of insufficient ventilation.

· **Protection of hands:**

Protective gloves
 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**

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **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.

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- **Eye protection:** Tightly sealed goggles
- **Body protection:** Protective work clothing

9 Physical and chemical properties

· General Information

Form:	Aerosol
Colour:	According to product specification
Odour:	Characteristic

· Change in condition

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: Not applicable, as aerosol.

· **Flash point:** -97°C
 Basis: propellant

· **Ignition temperature:** Not determined - aerosol.

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· Explosion limits:

Lower:	1.5 Vol %
Upper:	13.0 Vol %

· **Vapour pressure at 20°C:** 8300 hPa
 Basis: propellant

· **Density at 20°C:** 0.921 g/cm³
 Basis: active substance

· Solubility in / Miscibility with

water:	Not miscible or difficult to mix.
Organic solvents:	87.7 %

10 Stability and reactivity

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

Danger of bursting of the aerosol can during overheating

· **Materials to be avoided:**

· **Dangerous reactions** No dangerous reactions known.

· **Dangerous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

· **Acute toxicity:**

· **Primary irritant effect:**

· **on the skin:** No irritant effect.

· **on the eye:** Irritating effect.

· **Sensitization:** Sensitization possible through skin contact.

· **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

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Irritant
 · **Sensitisation** May cause sensitisation by skin contact.

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12 Ecological information

- **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

13 Disposal considerations

- **Product:**
- **Recommendation**
 Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **Land transport ADR/RID (cross-border)**



- **ADR/RID class:** 2 5F Gases.
- **Danger code (Kemler):** -
- **UN-Number:** 1950
- **Packaging group:** -
- **Hazard label** 2.1
- **Description of goods:** 1950 AEROSOLS
- **Tunnel restriction code** D

- **Maritime transport IMDG:**



- **IMDG Class:** 2.1
- **UN Number:** 1950
- **Label** 2.1
- **Packaging group:** -
- **EMS Number:** F-D,S-U
- **Marine pollutant:** No

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- **Proper shipping name:** AEROSOLS

- **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 2.1
- **UN/ID Number:** 1950
- **Label:** 2.1
- **Packaging group:** -
- **Proper shipping name:** AEROSOLS, flammable

- **UN "Model Regulation":** UN1950, AEROSOLS, 2.1

15 Regulatory information

- **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

- **Code letter and hazard designation of product:**



Xi Irritant
F+ Extremely flammable

- **Hazard-determining components of labelling:**

isobutyl methacrylate

- **Risk phrases:**

12 Extremely flammable.
 36 Irritating to eyes.
 43 May cause sensitisation by skin contact.
 66 Repeated exposure may cause skin dryness or cracking.
 67 Vapours may cause drowsiness and dizziness.

- **Safety phrases:**

3 Keep in a cool place.
 9 Keep container in a well-ventilated place.
 23 Do not breathe gas/fumes/vapour/spray
 24/25 Avoid contact with skin and eyes.
 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 33 Take precautionary measures against static discharges.
 51 Use only in well-ventilated areas.
 60 This material and its container must be disposed of as hazardous waste.

- **Special labelling of certain preparations:**

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C.
 Do not pierce or burn, even after use.
 Do not spray on a naked flame or any incandescent material.
 Buildup of explosive mixtures possible without sufficient ventilation.
 Keep out of the reach of children.

- **Classification in accordance with Directive 75/324/EEC:** Extremely flammable

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- **National regulations:**
- **Waterhazard class:**
Water hazard class 1: slightly hazardous for water.(In accordance with classification VwVwS,appendix 4)

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.

- **Relevant R-phrases**

- 10 Flammable.
- 11 Highly flammable.
- 12 Extremely flammable.
- 36 Irritating to eyes.
- 36/37/38 Irritating to eyes, respiratory system and skin.
- 43 May cause sensitisation by skin contact.
- 50 Very toxic to aquatic organisms.
- 66 Repeated exposure may cause skin dryness or cracking.
- 67 Vapours may cause drowsiness and dizziness.

- **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:**

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

- * **Data compared to the previous version altered.**

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