

## SECTION 1: Name of the substance/mixture and company

- **1.1 Product identifier**
- **Trade name:** METO RMA 6/7 black
- **Registration number**  
The ingredients of this product satisfy the criteria of Regulation (EC) 1907/2006 (REACH).
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No such uses identified at the present time.
- **Use of the substance/mixture:** Alcohol-based permanent marker ink
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/supplier:**  
DOKUMENTAL GmbH & Co  
KG, Woellnerstraße 26  
67065 Ludwigshafen, Germany  
Tel. + 49 (0) 621 37702 321  
Fax + 49 (0) 621 37702 391  
www.dokumental.de
- **Further information available from:**  
Technical Service & Product Safety
- Tel.: +49 (0) 621 37702 322  
E-mail: msds@dokumental.de
- **1.4 Emergency telephone number:**  
GBK Gefahrgut Büro GmbH  
+49 (0) 6132 84463  
Ingelheim, Germany

## SECTION 2: Possible hazards

- **2.1 Classification of the substance or mixture**
- **Classification in accordance with Regulation (EC) 1272/2008**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS07

 Skin Irrit. 2 H315 Causes skin irritation.  
 Eye Irrit. 2 H319 Causes severe eye irritation.  
 STOT SE 3 H336 May cause drowsiness or dizziness.

- **2.2 Label elements**
- **Labelling in accordance with Regulation (EC) 1272/2008**  
The product is classified and labelled in accordance with the CLP Regulation.
- **Danger pictograms**



GHS02



GHS07

- **Signal word** Danger
- **Hazard-critical ingredients to be labelled:**  
1-methoxy-2-propanol
- **Hazard statements**  
H225 Highly flammable liquid and vapour.  
H315 Causes skin irritation.  
H319 Causes severe eye irritation.  
H336 May cause drowsiness or dizziness.
- **Precautionary statements**  
P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.  
P103 Read label before use.  
P241 Use explosion-proof [electrical/ventilating/lighting] equipment.  
P261 Avoid breathing dust/fumes/gas/mist/vapours/spray.  
P303+P361+P353 IF ON SKIN (or hair): Immediately take off 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.

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P405 Store locked up.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Hazardous ingredients:**

CAS: 107-98-2 EINECS: 203-539-1 Reg. No: 01-2119457435-35	1-methoxy-2-propanol ⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336	50-100%
CAS: 64-17-5 EINECS: 200-578-6 Reg. No: 01-2119457610-43	Ethanol ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319	10-25%
CAS: 12645-31-7 EINECS: 235-741-0 Reg. No: 01-2119896587-13	Phosphoric acid mono-bis-(2-ethylhexyl)-ester ⚠ Skin Corr. 1B, H314; ⚠ Eye Dam. 1, H318	≤2.5%

- **Further information:**

The wording of the hazard statements listed can be found in Section 16.

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **If inhaled:** If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position).
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist, consult a doctor.
- **4.2 Most important symptoms/effects, acute and delayed**  
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### SECTION 5: Fire-fighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing media:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **Extinguishing media unsuitable for safety reasons:** Water
- **5.2 Special hazards arising from the substance or mixture**  
No further relevant information available.
- **5.3 Advice for firefighters**
- **Special protective equipment:** No special measures required.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons clear.  
Wear personal protective clothing.
- **6.2 Environmental precautions**  
Avoid release into sewers or watercourses.  
Prevent from entering sewers, pits and basements.  
Notify the competent authorities in the event of entry into watercourses or sewer systems. Dilute with large quantities of water.  
Prevent from entering sewers/surface water/groundwater.
- **6.3 Methods and materials for containment and cleaning up**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protective equipment.

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See Section 13 for information on disposal.

**SECTION 7: Handling and storage**

- **7.1 Protective measures for safe handling**  
 Ensure good ventilation/air exhaust at the workplace.  
 Avoid the formation of aerosols.
- **Information on fire and explosion protection:**  
 Keep ignition sources away. Do not smoke.  
 Take measures to prevent electrostatic charging.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and containers:** Store in a cool place.
- **Information on storage in one common storage facility:** Not required.
- **Further information on storage conditions:**  
 Keep containers tightly closed.  
 Store cool and dry in well-sealed containers.
- **Storage** 3
- **Classification according to the German Industrial Safety Regulation (BetrSichV):** Flammable liquids
- **7.3 Specific end uses** No further relevant information available.

**SECTION 8: Exposure controls/personal protection**

- **Additional information on the design of technical installations:** No further information, see Section 7.
- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

**64-17-5 Ethanol (10-25%)**OEL Long-term value: 380 mg/m<sup>3</sup>, 200 ml/m<sup>3</sup> 4(II); DFG, Y

- **Additional information:** The lists valid at the time of creation served as a basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General hygiene:**  
 Keep away from food, drink and animal feed.  
 Immediately remove all contaminated/soaked clothing.  
 Wash hands before breaks and at the end of work.  
 Avoid contact with eyes and skin.
- **Respiratory protection:**  
 In cases of brief exposure or low pollution, use respiratory filter device; in cases of intensive or longer exposure, use self-contained respiratory protective device.
- **Hand protection:**



Protective gloves

The glove material must be impermeable and resistant to the product/substance/preparation. Owing to a lack of suitable tests, no recommendation can be made for suitable protective glove material for use with the product/preparation/chemical mixture. Select the glove material taking into account the breakthrough times, permeation rates and degradation.

If only brief exposure of the glove material to splashes is expected, lined gloves with superior wearability are recommended in the interests of user acceptance.

- **Glove material**  
 Selection of a suitable glove is dependent on other properties besides the material. These properties differ from manufacturer to manufacturer. Since the product constitutes a preparation from multiple substances, the resistance of glove materials cannot be calculated in advance and must therefore be checked before use.  
 Nitrile rubber
- **Breakthrough time of the glove material**  
 The exact breakthrough time must be obtained from the manufacturer of the protective gloves and observed.

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## · Eye protection:



Tight fitting safety goggles

**SECTION 9: Physical and chemical properties**

## · 9.1 Information on basic physical and chemical properties

## · General information

## · Appearance

Form:

Liquid

Colour:

As per product name

## · Odour:

Product-specific

## · Odour threshold:

Not determined.

## · pH value:

Not determined.

## · Change of state

Melting point/freezing point:

Not determined.

Initial boiling point and boiling range:

78 °C

## · Flash point:

13 °C

## · Flammability (solid, gaseous):

Not applicable.

## · Ignition temperature:

287 °C

## · Decomposition temperature:

Not determined.

## · Auto-ignition temperature:

The product is not self-igniting.

## · Explosive properties:

The product is not explosive.

The formation of vapour-air mixtures presenting an explosion hazard is however possible.

## · Explosive limits:

Lower explosive limit:

1.7% by volume

Upper explosive limit:

15% by volume

## · Vapour pressure at 20 °C:

59 hPa

## · Density at 20 °C:

0.9 g/cm<sup>3</sup>

## · Relative density:

Not determined.

## · Vapour density:

Not determined.

## · Evaporation rate:

Not determined.

## · Solubility in/miscibility with water:

Fully miscible

## · Partition coefficient n-octanol/water:

Not determined.

## · Viscosity:

Dynamic:

Not determined.

Kinematic:

Not determined.

## · Solvent content:

Organic solvents:

87.4%

Solids content:

10.8%

## · 9.2 Other information

The physical and chemical properties listed in Section 9.1 are approximate values and were derived in part from the data for the ingredients of the mixture. These values do not constitute binding product specifications.

**SECTION 10: Stability and reactivity**

## · 10.1 Reactivity No further relevant information available.

## · 10.2 Chemical stability

## · Thermal decomposition/conditions to be avoided:

No decomposition when used as intended.

## · 10.3 Possibility of dangerous reactions: No dangerous reactions known.

## · 10.4 Conditions to be avoided: No further relevant information available.

## · 10.5 Incompatible materials: No further relevant information available.

## · 10.6 Hazardous decomposition products: No hazardous decomposition products known.

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**SECTION 11: Toxicological information**

- **11.1 Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Corrosive/irritant effect on skin**  
Causes skin irritation.
- **Severe eye damage/irritation**  
Causes severe eye irritation.
- **Sensitization of the respiratory tract/skin**  
Based upon available data, the classification criteria are not met.
- **CMR effects (carcinogenic, mutagenic and reprotoxic effects)**
- **Germ cell** Based upon available data, the classification criteria are not met.
- **Carcinogenicity:** Based upon available data, the classification criteria are not met.
- **Reprotoxicity:** Based upon available data, the classification criteria are not met.
- **Specific target organ toxicity – single exposure**  
May cause drowsiness and dizziness.
- **Specific target organ toxicity – repeat exposure**  
Based upon available data, the classification criteria are not met.
- **Aspiration hazard:** Based upon available data, the classification criteria are not met.


**SECTION 12: Ecological information**

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability:** No further relevant information available.
- **12.3 Bioaccumulation potential** No further relevant information available.
- **12.4 Mobility in soil:** No further relevant information available.
- **Further ecological information:**
- **General information:**  
Water hazard class 2 (own assessment): Clearly hazardous to water.  
Prevent entry into the ground water, water courses and sewers. Hazardous to drinking water if leaked into the subsoil, even in small quantities.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other harmful effects:** No further relevant information available.

**SECTION 13: Disposal considerations**

- **13.1 Waste treatment methods**
- **Recommendation:**  
Do not dispose of together with household waste. Prevent entry into sewers.
- **Soiled packaging:**
- **Recommendation:** Dispose of in accordance with the official regulations.
- **Recommended cleaning agent:** Water, if necessary with the addition of detergents.

**SECTION 14: Transport information**

- **14.1 UN number**
- **ADR, IMDG, IATA** UN1263
- **14.2 UN proper shipping name**
- **ADR** 1263 FARBE
- **IMDG, IATA** PAINT
- **14.3 Transport hazard classes**
- **ADR**
- 
- **Class** 3 (F1) Flammable
- **Hazard label(s)** 3

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## • IMDG, IATA



• Class 3 Flammable liquids  
 • Label 3

## • 14.4 Packing group

• ADR, IMDG, IATA II

## • 14.5 Environmental hazards

Not applicable.

## • 14.6 Special precautions for user

• Kemler number: Caution: Flammable liquids  
 33  
 • EMS number: F-E, S-E  
 • Stowage category B

• 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

## • Transport/further information:

• ADR  
 • Limited quantity (LQ) 5L  
 • Exempted quantities (EQ) Code: E2  
 Maximum net quantity per inner packaging: 30 ml  
 Maximum net quantity per outer packaging: 500 ml  
 • Transport category 2  
 • Tunnel restriction code D/E

## • IMDG

• Limited quantities (LQ) 5L  
 • Excepted quantities (EQ) Code: E2  
 Maximum net quantity per inner packaging: 30 ml  
 Maximum net quantity per outer packaging: 500 ml

• UN "Model Regulation": UN 1263 FARBE, 3, II

## SECTION 15: Legislation

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

• Directive 2012/18/EU  
 • Named hazardous substances - ANNEX I Contains none of the ingredients.  
 • Seveso category P5c FLAMMABLE LIQUIDS  
 • Qualifying quantity (in tonnes) for the application of lower tier requirements: 5,000 tonnes  
 • Qualifying quantity (in tonnes) for the application of upper tier requirements: 50,000 tonnes  
 • REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

## • National (German) regulations:

## • Technical Instructions on Air Quality

Class	Fraction in %
NK	50-100

• Water hazard class: Water hazard class 2 (own assessment): Clearly hazardous to water.  
 • 15.2 Chemical safety assessment: A chemical safety assessment was not carried out.

## SECTION 16: Other information

This information is based on our knowledge at the present time. It does not constitute a guarantee of product properties and does not establish a contractual legal relationship.

## • Relevant statements

H225 Highly flammable liquid and vapour.  
 H226 Flammable liquid and vapour.  
 H314 Causes severe skin burns and severe eye damage.  
 H318 Causes severe eye damage.  
 H319 Causes severe eye irritation.  
 H336 May cause drowsiness or dizziness.

## • 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)  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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# Safety data sheet

In accordance with 1907/2006/EC, Article 31



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EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Flam. Liq. 2: Flammable liquids - Category 2  
Flam. Liq. 3: Flammable liquids - Category 3  
Skin Corr. 1B: Skin irritant/corrosive - Category 1B  
Skin Irrit. 2: Skin irritant/corrosive - Category 2  
Eye Dam. 1: Severe eye damage/irritation - Category 1  
Eye Irrit. 2: Severe eye damage/irritation - Category 2  
STOT SE 3: Specific Target Organ Toxicity (Single Exposure) - Category 3

• **\* Changes from the previous edition**

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