

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

- **1.1 Product identifier**
- **Trade name:** MA 3021 red
- **Article number:** 100000001168
- **Registration number**
The ingredients of this ink meet the criteria of the Regulation 1907/2006/EC (REACH).
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
Currently no such applications are identified.
- **Application of the substance / the mixture** alcohol based permanent marking ink
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
DOKUMENTAL GmbH & Co KG
Woellnerstraße 26
D-67065 Ludwigshafen
Phone + 49(0)621/37702 321
Fax + 49(0)621/37702 391
www.dokumental.de
- **Further information obtainable from:**
Technical Service, Dr. B. Polzin
Tel.: +49-621-37702 322
Mobile +49-1726204412
E-Mail: bernd.polzin@dokumental.de
- **1.4 Emergency telephone number:**
GBK Gefahrgut Büro GmbH
+49 (0) 6132 / 84463
Ingelheim, Deutschland

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

STOT SE 3 H336 May cause drowsiness or dizziness.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS02



GHS05



GHS07



GHS09

- **Signal word** Danger
- **Hazard-determining components of labelling:**
propan-1-ol
1-methoxy-2-propanol
C.I. Solvent Red 49
- **Hazard statements**
H226 Flammable liquid and vapour.

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H318 Causes serious eye damage.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P241 Use explosion-proof electrical/ventilating/lighting equipment.
P303+P361+P353 IF ON SKIN (or hair): 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.
P310 Immediately call a POISON CENTER/doctor.
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 characterisation: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 107-98-2 EINECS: 203-539-1 Reg.nr.: 01-2119457435-35	1-methoxy-2-propanol Flam. Liq. 3, H226; STOT SE 3, H336	50-100%
CAS: 71-23-8 EINECS: 200-746-9 Reg.nr.: 01-2119486761-29	propan-1-ol Flam. Liq. 2, H225; Eye Dam. 1, H318; STOT SE 3, H336	25-50%
CAS: 85029-58-9 EINECS: 285-083-3	C.I. Solvent Yellow 82 Aquatic Acute 1, H400; Aquatic Chronic 1, H410	2.5-10%
CAS: 509-34-2 EINECS: 208-096-8	C.I. Solvent Red 49 Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Irrit. 2, H315; STOT SE 3, H335	≤2.5%

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- After inhalation:** Supply fresh air; consult doctor in case of complaints.
- After skin contact:** Generally the product does not irritate the skin.
- After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing:** If symptoms persist consult doctor.

4.2 Most important symptoms and effects, both 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: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture No further relevant information available.

5.3 Advice for firefighters

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 away.

Wear protective clothing.

6.2 Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

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

Ensure adequate ventilation.

6.4 Reference to other sections

See Section 7 for information on safe handling.

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See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect from heat.
Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Protect from heat and direct sunlight.
- **Storage class:** 3
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

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

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

107-98-2 1-methoxy-2-propanol (50-100%)

IOELV	Short-term value: 568 mg/m ³ , 150 ppm Long-term value: 375 mg/m ³ , 100 ppm Skin
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- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
- **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **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
If only a short-term loading of the glove material by splashes is expected, tricoted gloves with higher wearability for the better acceptance of the users are recommended.
- **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.
Nitrile rubber, NBR
- **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:**



Tightly sealed goggles

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SECTION 9: Physical and chemical properties

<ul style="list-style-type: none"> · 9.1 Information on basic physical and chemical properties · General Information · Appearance: <ul style="list-style-type: none"> Form: Fluid Colour: According to product specification · Odour: Product specific · Odour threshold: Not determined. 	
<ul style="list-style-type: none"> · Important information on protection of health and environment, and on safety. - 	
· pH-value at 20 °C:	6
<ul style="list-style-type: none"> · Change in condition <ul style="list-style-type: none"> Melting point/freezing point: Undetermined. Initial boiling point and boiling range: 96,5-97,5 °C · Flash point: 23 °C · Flammability (solid, gas): Not applicable. · Ignition temperature: 287 °C · Decomposition temperature: Not determined. · Auto-ignition temperature: Product is not selfigniting. · Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible. · Explosion limits: <ul style="list-style-type: none"> Lower: 1,7 Vol % Upper: 13,5 Vol % · Vapour pressure at 20 °C: 19 hPa · Density at 20 °C: 0,9 g/cm³ · 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: <ul style="list-style-type: none"> Dynamic at 20 °C: 4,5 mPas Kinematic: Not determined. · Solvent content: <ul style="list-style-type: none"> Organic solvents: 84,8 % Solids content: 15,0 % 	
· 9.2 Other information	The physical and chemical properties given in Section 9.1 are rough data only, which are partially derived from the component's data of the mixture. These data are no 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 if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **LD/LC50 values relevant for classification:**

71-23-8 propan-1-ol

Oral	LD50	8,000 mg/kg (rat)
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Dermal	LD50	4,000 mg/kg (rab)
Inhalative	LC50/4 h	33.8 mg/l (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**
Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **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.
- **STOT-single exposure**
May cause drowsiness or dizziness.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on 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 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **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.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- **14.1 UN-Number**
 - **ADR, IMDG, IATA** UN1263
 - **14.2 UN proper shipping name**
 - **ADR** 1263 PAINT, ENVIRONMENTALLY HAZARDOUS
 - **IMDG** PAINT (metal complex dye, yellow), MARINE POLLUTANT
 - **IATA** PAINT
 - **14.3 Transport hazard class(es)**
 - **ADR**
- 

- **Class** 3 (F1) Flammable liquids.
 - **Label** 3

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• **IMDG**



• **Class** 3 Flammable liquids.
• **Label** 3

• **IATA**



• **Class** 3 Flammable liquids.
• **Label** 3

• **14.4 Packing group**

• **ADR, IMDG, IATA** III

• **14.5 Environmental hazards:**

Product contains environmentally hazardous substances: metal complex dye, yellow

• **Marine pollutant:**

Yes

• **Special marking (ADR):**

Symbol (fish and tree)
Symbol (fish and tree)

• **14.6 Special precautions for user**

Warning: Flammable liquids.

• **Danger code (Kemler):**

30

• **EMS Number:**

F-E, S-E

• **Stowage Category**

A

• **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

• **Transport/Additional information:**

• **ADR**

• **Limited quantities (LQ)**

5L

• **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

• **Transport category**

3

• **Tunnel restriction code**

D/E

• **IMDG**

• **Limited quantities (LQ)**

5L

• **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

• **UN "Model Regulation":**

UN 1263 PAINT, 3, III, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

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

• **Directive 2012/18/EU**

• **Named dangerous substances - ANNEX I** None of the ingredients is listed.

• **Seveso category**

E2 Hazardous to the Aquatic Environment

P5c FLAMMABLE LIQUIDS

• **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t

• **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t

• **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

• **National regulations:**

• **Technical instructions (air):**

Class	Share in %
NK	50-100

• **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

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

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SECTION 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 phrases

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

• 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 Organisation
ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)
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
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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
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
Acute Tox. 4: Acute toxicity - Category 4
Skin Irrit. 2: Skin corrosion/irritation - Category 2
Eye Dam. 1: Serious eye damage/eye irritation - Category 1
STOT SE 3: Specific target organ toxicity (single exposure) - Category 3
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard - Category 2

• * Data compared to the previous version altered.