

**Department of Community & Family Medicine  
Division of Occupational & Environmental Medicine  
Box 3834, Durham, NC 27710**

**November 10, 2011**

**Fax: 919-286-5647**

**Tel: 919-286-5744**

Dr. Bernd Polzin  
Dokumental GmbH & Co.  
P.O. Box 211469  
Woellnerstrasse 26  
Ludwigshafen D 6700,  
GERMANY

Dear Dr. Polzin:

I enclose the evaluation of your ink(s) for use in writing instruments listed under Product # WB

7300.1 and the following brand names:

WB 7300.1 SERIES DRY-ERASE MARKER INK

This evaluation was conducted in conformance with the chronic health hazard labeling practice,

ASTM D-4236 as adopted by into law as part of the Federal Hazardous Act administered by the

Consumer Product Safety Commission (CPSC). The toxicological procedures I have used for the

evaluation of your products have been reviewed by the California Department of Health Services

(CDHS) and are on file with CPSC. CDHS has found that the exposure presumptions I use are

conservative. My assessment presumes that an individual will absorb 25 cm of line, either

through skin contact or ingestion, each day and that 2 cm of line can get into the eye.

If default values for chronic toxicity have been published by the California Office of Health

Hazard Assessment (Proposition 65), these are incorporated into my risk assessment.

We have

completed market surveys to determine writing instrument use patterns. Information from these

surveys is used to modify our exposure presumptions. Survey data has been shared with CPSC.

I assume that a 10 kg, 1 year old child will be using writing instruments containing these inks. I

use the following safety factors or limits in determining whether or not a writing instrument

would require acute or chronic hazard labeling:

**DUKE UNIVERSITY SCHOOL OF MEDICINE**

Effect Safety Factor

Acute effects from ink absorption 10-100x

Eye irritation (Draize testing or equivalent) less than mild  
Skin irritation (Draize testing) mild  
Chronic health effects 100-1000x  
For potential carcinogenic contaminants I use a quantitative risk assessment approach using  $10^{-6}$  risk at the 95% upper bound of a multistage model as being acceptable.  
I require bioaccessibility testing of inks or ingredients of concern for potential toxins.  
Synthetic intestinal or gastric juice is used for solubility testing. If no bioaccessibility test method has been developed, quantitative testing is used (such as for PCBs and hexachlorobenzene).  
For markers, I assume that the ink laydown is 600 micrograms/cm, the maximum ink laydown for marking instruments using these types of inks. . I assume that ink is only available via the nib or tip with use and manipulation testing. Using these presumptions, I have found no hazardous component or contaminant level or effect of the products themselves that would require acute or chronic hazard labeling to conform with ASTM D4236, the Labeling for Hazardous Art Materials Act, or LHAMA regulations (16 CFR 14(B)(8)).  
Further, assuming that the maximum marker reservoir size in which these inks are used is 12 mL,  
I find that these inks are classified as NOT being toxic, corrosive, skin/eye irritants, or a strong sensitizer as defined in 16 CFR 1500.3(b)(5) or 1500.3(b)(7) – (9) of the Federal Hazardous Substances Act nor do they contain components that would require special labeling under 16 CFR 1500.14. It requires no labeling under California's Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). My evaluation is in accord with the 1984 CPSC Policy Statement on Animal Testing. I am a board certified toxicologist as defined by 16 CFR 14(B)(8).  
Sincerely,

Consulting Toxicologist  
stopf001@mc.duke.edu

The following is a list of colors covered by this certification:

WB 7302.1 DARK BLUE  
WB 7304.1 LIGHT BLUE  
WB 7311.1 BLACK  
WB 7322.1 RED  
WB 7323.1 BLAZING RED  
WB 7324.1 RED

WB 7325.1 RED  
WB 7336.1 YELLOW GREEN  
WB 7338.1 FOREST GREEN  
WB 7339.1 GREEN  
WB 7341.1 RED  
WB 7342.1 MAGENTA  
WB 7351.1 BROWN  
WB 7362.1 ORANGE  
WB 7363.1 YELLOW  
WB 7381.1 TURQUOISE

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Printing date 06/03/2011  
Reviewed on 06/03/2011

## **Material Safety Data Sheet**

**acc. to ISO/DIS 11014**

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- **Product identifier**
- **Trade name:** MA 3012 schwarz - black
- **Relevant identified uses of the substance or mixture and uses advised against**  
Currently no such applications are identified
- **Application of the substance / the preparation** alcohol based permanent marking ink
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**

DOKUMENTAL GmbH & Co KG Schreibfarben  
Woellnerstraße 26  
D-67065 Ludwigshafen  
Phone + 49 (0) 621/5402321  
Fax + 49 (0) 621/5402391  
www. dokumental.de

- **Information department:**  
Technical Service, Dr. B. Polzin  
Tel.: +49-621-5402322  
Mobile +49-1726204412  
E-Mail: bernd.polzin@dokumental.de

- **Emergency telephone number:**  
GBK Gefahrgut Büro GmbH  
++49 (0) 6132 / 84463  
Ingelheim, Deutschland  
24-hour-Emergency- Telephone-Number (GBK Contract ID: 94050): (001) 352 323 3500

\*

- **Chemical characterization: Mixtures**  
Mixture of the following substances, containing non-hazardous substances and colouring agents.
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:**  
107-98-2 1-Methoxy-2-propanol 25-50%  
71-23-8 propan-1-ol 25-50%  
85536-14-7 Benzenesulfonic acid, 4-C10-13-sec-alkylderivs. 2.5-10%  
84281-86-7 C. I. Solvent Violet 8 2.5-10%  
495-54-5 C. I. Solvent Orange 3 2.5-10%
- **Additional information:** For the wording of the listed risk phrases refer to section 16.

\*

- **Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**  
Harmful  
Possible risk of irreversible effects.  
Irritant  
Irritating to skin. Risk of serious damage to eyes.  
Dangerous for the environment  
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
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.  
Has a narcotizing effect.

· **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

· **Label elements**

· **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with directives on hazardous materials.

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

Harmful

Dangerous for the environment

(Contd. on page 2)

USA

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Printing date 06/03/2011

Reviewed on 06/03/2011

## **Material Safety Data Sheet**

**acc. to ISO/DIS 11014**

**Trade name: MA 3012 schwarz - black**

(Contd. of page 1)

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

C. I. Solvent Orange 3

· **Risk phrases:**

Flammable.

Irritating to skin.

Risk of serious damage to eyes.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Possible risk of irreversible effects.

· **Safety phrases:**

Keep container tightly closed.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Wear suitable protective clothing, gloves and eye/face protection.

Use appropriate container to avoid environmental contamination.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**

# 0

Health = 2

Fire = 3

Reactivity = 0

· **HMSI-ratings (scale 0 - 4)**

REACTIVITY

2

3

0

Health = 2

Fire = 3

Reactivity = 0

\*

· **After inhalation:**

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

Immediately rinse with water.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:** If symptoms persist consult doctor.

\*

· **Suitable extinguishing agents:**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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

· **Protective equipment:** No special measures required.

\*

· **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

Wear protective clothing.

• **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.

• **Methods and material for containment and cleaning up:**

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

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

• **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

\*

• **Handling:**

• **Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

(Contd. on page 3)

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## **Material Safety Data Sheet**

acc. to ISO/DIS 11014

**Trade name: MA 3012 schwarz - black**

(Contd. of page 2)

• **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

• **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 receptacle tightly sealed.

• **Specific end use(s)** No further relevant information available.

\*

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

• **Components with limit values that require monitoring at the workplace:**

**107-98-2 1-Methoxy-2-propanol (25-50%)**

REL

TLV

Short-term value: 540 mg/m<sup>3</sup>, 150 ppm

Long-term value: 360 mg/m<sup>3</sup>, 100 ppm

Short-term value: 553 mg/m<sup>3</sup>, 150 ppm

Long-term value: 369 mg/m<sup>3</sup>, 100 ppm

**71-23-8 propan-1-ol (25-50%)**

PEL

REL

TLV

500 mg/m<sup>3</sup>, 200 ppm

Short-term value: 625 mg/m<sup>3</sup>, 250 ppm

Long-term value: 500 mg/m<sup>3</sup>, 200 ppm

Skin

246 mg/m<sup>3</sup>, 100 ppm

• **Additional information:** The lists that were valid during the creation 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 skin.

Avoid contact with the eyes and skin.

• **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

• **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 through time has to be found out by the manufacturer of the protective gloves and has

to be observed.

· **Eye protection:**

Tightly sealed goggles

\*

· **General Information**

· **Appearance:**

**Form:** Fluid

**Color:** According to product specification

· **Odor:** Product specific

· **Odour threshold:** Not determined.

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## **Material Safety Data Sheet**

acc. to ISO/DIS 11014

**Trade name:** MA 3012 schwarz - black

(Contd. of page 3)

· **Important information on protection of health and environment, and on safety.** -

· **pH-value:** Not determined.

· **Change in condition**

**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** 96°C (205 °F)

· **Flash point:** 23°C (73 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 287°C (549 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

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

· **Explosion limits:**

**Lower:** 1.7 Vol %

**Upper:** 13.5 Vol %

· **Vapor pressure at 20°C (68 °F):** 19 hPa (14 mm Hg)

· **Density at 20°C (68 °F):** 0.85 g/cm<sup>3</sup> (7.093 lbs/gal)

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with**

**Water:** Fully miscible.

· **Segregation coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

**Dynamic at 20°C (68 °F):** 5 mPas

**Kinematic:** Not determined.

· **Solvent content:**

**Organic solvents:** 79.8 %

**Solids content:** 11.0 %

· **Other information** No further relevant information available.

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

No decomposition if used according to specifications.

· **Incompatible materials:** No further relevant information available.

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

\*

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

**71-23-8 propan-1-ol**

Oral LD50 8000 mg/kg (rat)

Dermal LD50 4000 mg/kg (rab)

Inhalative LC50/4 h 9.8 mg/l (rat)

**85536-14-7 Benzenesulfonic acid, 4-C10-13-sec-alkylderivs.**

Oral LD50 1350 mg/kg (rat)

**Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

\*

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.

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## **Material Safety Data Sheet**

**acc. to ISO/DIS 11014**

**Trade name: MA 3012 schwarz - black**

(Contd. of page 4)

- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**

Water hazard class 3 (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

- **Waste treatment methods**
- **Recommendation:**

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

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

\*

- **DOT regulations:**
  - **Hazard class:** 3
  - **Identification number:** UN1263
  - **Packing group:** III
  - **Proper shipping name (technical name):** PAINT
  - **Label** 3
  - **Remarks:** Special marking with the symbol (fish and tree).
  - **Land transport ADR/RID (cross-border):**
  - **ADR/RID class:** 3 (F1) Flammable liquids
  - **Danger code (Kemler):** 30
  - **UN-Number:** 1263
  - **Packaging group:** III
  - **Special marking:** Symbol (fish and tree)
  - **UN proper shipping name:** 1263 PAINT, ENVIRONMENTALLY HAZARDOUS
  - **Maritime transport IMDG:**
  - **IMDG Class:** 3
  - **UN Number:** 1263
  - **Label** 3
  - **Packaging group:** III
  - **EMS Number:** F-E,S-E
  - **Marine pollutant:** Yes
- Symbol (fish and tree)
- **Propper shipping name:** PAINT (C. I. Solvent Orange 3)
  - **Remarks:** 1263 Paint (dye-stuff C.I. Solvent Orange 3), Marine

Pollutant

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USA

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## Material Safety Data Sheet

acc. to ISO/DIS 11014

Trade name: MA 3012 schwarz - black

(Contd. of page 5)

- Air transport ICAO-TI and IATA-DGR:
- ICAO/IATA Class: 3
- UN/ID Number: 1263
- Label 3
- Packaging group: III
- Proper shipping name: PAINT
- Environmental hazards: Product contains environmentally hazardous substances: C. I. Solvent Orange 3

\*

- Sara
- Section 355 (extremely hazardous substances):  
None of the ingredient is listed.
- Section 313 (Specific toxic chemical listings):  
None of the ingredients is listed.
- TSCA (Toxic Substances Control Act):  
All ingredients are listed.
- Proposition 65
- Chemicals known to cause cancer:  
None of the ingredients is listed.
- Chemicals known to cause reproductive toxicity for females:  
None of the ingredients is listed.
- Chemicals known to cause reproductive toxicity for males:  
None of the ingredients is listed.
- Chemicals known to cause developmental toxicity:  
None of the ingredients is listed.
- Cancerogenity categories
- EPA (Environmental Protection Agency)  
62-53-3 aniline B2  
101-61-1 N,N,N',N'-tetramethyl-4,4'-methylenedianiline B2
- IARC (International Agency for Research on Cancer)  
101-61-1 N,N,N',N'-tetramethyl-4,4'-methylenedianiline 2B  
90-94-8 4,4'-bis(dimethylamino)benzophenone 2B
- NTP (National Toxicology Program)  
90-94-8 4,4'-bis(dimethylamino)benzophenone R  
101-61-1 N,N,N',N'-tetramethyl-4,4'-methylenedianiline R
- TLV (Threshold Limit Value established by ACGIH)  
71-23-8 propan-1-ol A4  
122-39-4 diphenylamine A4  
62-53-3 aniline A3
- MAK (German Maximum Workplace Concentration)  
62-53-3 aniline 4  
90-94-8 4,4'-bis(dimethylamino)benzophenone 2  
101-61-1 N,N,N',N'-tetramethyl-4,4'-methylenedianiline 2
- NIOSH-Ca (National Institute for Occupational Safety and Health)  
62-53-3 aniline
- OSHA-Ca (Occupational Safety & Health Administration)  
62-53-3 aniline
- Product related hazard informations:  
The product has been classified and marked in accordance with directives on hazardous materials.
- Hazard symbols:

Harmful

Dangerous for the environment

(Contd. on page 7)

USA

Page 7/7

Printing date 06/03/2011

Reviewed on 06/03/2011

## Material Safety Data Sheet

acc. to ISO/DIS 11014

Trade name: MA 3012 schwarz - black

(Contd. of page 6)

- Hazard-determining components of labelling:  
C. I. Solvent Orange 3



· **Risk phrases:**

Flammable.

Irritating to skin.

Risk of serious damage to eyes.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Possible risk of irreversible effects.

· **Safety phrases:**

Keep container tightly closed.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Wear suitable protective clothing, gloves and eye/face protection.

Use appropriate container to avoid environmental contamination.

· **National regulations:**

· **Technical instructions (air):**

**Class Share in %**

NK 50-100

· **Water hazard class:** Water hazard class 3 (Self-assessment): extremely hazardous for water.

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.

· \* **Data compared to the previous version altered.**

USA

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Printing date 03.06.2011

Revision: 03.06.2011

Version number 13

## **Safety data sheet**

**according to 1907/2006/EC, Article 31**

\*

· **Product identifier**

· **Trade name:** MA 3012 schwarz - black

· **Registration number**

The ingredients of this ink have been pre-registered according to 1907/2006/EC (REACH)

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

Currently no such applications are identified

· **Application of the substance / the preparation** alcohol based permanent marking ink

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

DOKUMENTAL GmbH & Co KG Schreibfarben

Woellnerstraße 26

D-67065 Ludwigshafen

Phone + 49(0) 621/5402321

Fax + 49(0) 621/5402391

www. dokumental.de

· **Further information obtainable from:**

Technical Service, Dr. B. Polzin

Tel.: +49-621-5402322

Mobile +49-1726204412

E-Mail: bernd.polzin@dokumental.de

· **Emergency telephone number:**

GBK Gefahrgut Büro GmbH

++49 (0) 6132 / 84463

Ingelheim, Deutschland

\*

· **Classification of the substance or mixture**

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

Xn; Harmful

R68: Possible risk of irreversible effects.

Xi; Irritant

R38-41: Irritating to skin. Risk of serious damage to eyes.

N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R10: 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.

Has a narcotizing effect.

· **Classification system:**

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

· **Label elements**

· **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:**

Xn Harmful

N Dangerous for the environment

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

C. I. Solvent Orange 3

· **Risk phrases:**

10 Flammable.

38 Irritating to skin.

41 Risk of serious damage to eyes.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

68 Possible risk of irreversible effects.

· **Safety phrases:**

7 Keep container tightly closed.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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EU

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Printing date 03.06.2011

Revision: 03.06.2011

Version number 13

## **Safety data sheet**

**according to 1907/2006/EC, Article 31**

**Trade name: MA 3012 schwarz - black**

(Contd. of page 1)

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

57 Use appropriate container to avoid environmental contamination.

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

\*

· **Chemical characterization: Mixtures**

Mixture of the following substances, containing non-hazardous substances and colouring agents.

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

· **Dangerous components:**

CAS: 107-98-2

EINECS: 203-539-1

1-Methoxy-2-propanol

R10-67

Flam. Liq. 3, H226; STOT SE 3, H336

25-50%

CAS: 71-23-8

EINECS: 200-746-9

propan-1-ol

Xi R41; F R11

R67

Flam. Liq. 2, H225; Eye Dam. 1, H318; STOT SE 3, H336

25-50%

CAS: 85536-14-7

EINECS: 287-494-3

Benzenesulfonic acid, 4-C10-13-sec-alkylderivs.

C R34; Xn R22

Skin Corr. 1B, H314; Acute Tox. 4, H302

2,5-10%

CAS: 84281-86-7

EINECS: 282-630-8

C. I. Solvent Violet 8

Xn R22; Xi R41

Eye Dam. 1, H318; Acute Tox. 4, H302

2,5-10%

CAS: 495-54-5

EINECS: 207-803-7

C. I. Solvent Orange 3

Xn R22-68; Xi R38; N R50/53

Muta. Cat. 3

Muta. 1B, H340; Carc. 2, H351; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317

2,5-10%

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

\*

• **Description of first aid measures**

• **After inhalation:**

In case of unconsciousness place patient stably in side position for transportation.

• **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

Immediately rinse with water.

• **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

• **After swallowing:** If symptoms persist consult doctor.

• **Information for doctor:**

• **Most important symptoms and effects, both acute and delayed**

No further relevant information available.

• **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

\*

• **Extinguishing media**

• **Suitable extinguishing agents:**

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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

• **Advice for firefighters**

• **Protective equipment:** No special measures required.

\*

• **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

Wear protective clothing.

• **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.

• **Methods and material for containment and cleaning up:**

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

Dispose contaminated material as waste according to item 13.

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EU

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Revision: 03.06.2011

Version number 13

## Safety data sheet

according to 1907/2006/EC, Article 31

Trade name: MA 3012 schwarz - black

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Ensure adequate ventilation.

• **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

\*

• **Handling:**

• **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 against electrostatic charges.

• **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.

• **Specific end use(s)** No further relevant information available.

\*

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**

**107-98-2 1-Methoxy-2-propanol (25-50%)**

IOELV Short-term value: 568 mg/m<sup>3</sup>, 150 ppm

Long-term value: 375 mg/m<sup>3</sup>, 100 ppm

Skin

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

- **Exposure controls**

- **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 skin.

Avoid contact with the eyes and skin.

- **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:**

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

to be observed.

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## **Safety data sheet**

**according to 1907/2006/EC, Article 31**

**Trade name: MA 3012 schwarz - black**

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- **Eye protection:**

Tightly sealed goggles

\*

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

**Form:** Fluid

**Colour:** According to product specification

- **Odour:** Product specific

- **Odour threshold:** Not determined.

- **Important information on protection of health and environment, and on safety.** -

-

- **pH-value:** Not determined.

- **Change in condition**

**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** 96°C

- **Flash point:** 23°C

- **Flammability (solid, gaseous):** Not applicable.

- **Ignition temperature:** 287°C

- **Decomposition temperature:** Not determined.

- **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:** 1,7 Vol %

· **Upper:** 13,5 Vol %

· **Vapour pressure at 20°C:** 19 hPa

· **Density at 20°C:** 0,85 g/cm<sup>3</sup>

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with**

**water:** Fully miscible.

· **Segregation coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

**Dynamic at 20°C:** 5 mPas

**Kinematic:** Not determined.

· **Solvent content:**

**Organic solvents:** 79,8 %

**Solids content:** 11,0 %

· **Other information** No further relevant information available.

· **Reactivity**

· **Chemical stability**

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

No decomposition if used according to specifications.

· **Possibility of hazardous reactions** No dangerous reactions known.

· **Conditions to avoid** No further relevant information available.

· **Incompatible materials:** No further relevant information available.

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

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## **Safety data sheet**

**according to 1907/2006/EC, Article 31**

**Trade name: MA 3012 schwarz - black**

(Contd. of page 4)

\*

· **Information on toxicological effects**

· **Acute toxicity:**

· **LD/LC50 values relevant for classification:**

**71-23-8 propan-1-ol**

Oral LD50 8000 mg/kg (rat)

Dermal LD50 4000 mg/kg (rab)

Inhalative LC50/4 h 9,8 mg/l (rat)

**85536-14-7 Benzenesulfonic acid, 4-C10-13-sec-alkylderivs.**

Oral LD50 1350 mg/kg (rat)

· **Primary irritant effect:**

· **on the skin:** Irritant to skin and mucous membranes.

· **on the eye:** Strong irritant with the danger of severe eye injury.

· **Sensitization:** No sensitizing effects known.

· **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:

Irritant

\*

· **Toxicity**

· **Acquatic toxicity:** No further relevant information available.

· **Persistence and degradability** No further relevant information available.

· **Behaviour in environmental systems:**

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

· **Ecotoxicological effects:**

· **Remark:** Toxic for fish

· **Additional ecological information:**

· **General notes:**

Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water  
Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

- **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.

\*

- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** 3 (F1) Flammable liquids.
- **Danger code (Kemler):** 30
- **UN-Number:** 1263
- **Packaging group:** III
- **Hazard label** 3
- **Special marking:** Symbol (fish and tree)
- **UN proper shipping name:** 1263 PAINT, ENVIRONMENTALLY HAZARDOUS
- **Limited quantities (LQ)** 5L

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## Safety data sheet

according to 1907/2006/EC, Article 31

Trade name: MA 3012 schwarz - black

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- **Tunnel restriction code** D/E
- **Maritime transport IMDG:**
- **IMDG Class:** 3
- **UN Number:** 1263
- **Label** 3
- **Packaging group:** III
- **EMS Number:** F-E,S-E
- **Marine pollutant:** Yes

Symbol (fish and tree)

- **Proper shipping name:** PAINT (C. I. Solvent Orange 3)
- **Remarks:** 1263 Paint (dye-stuff C.I. Solvent Orange 3), Marine Pollutant
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1263
- **Label** 3

- **Packaging group:** III

• **Proper shipping name:** PAINT

• **Environmental hazards:** Product contains environmentally hazardous substances: C. I. Solvent Orange 3

- **Special precautions for user** Warning: Flammable liquids.

• **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

\*

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **Technical instructions (air):**

**Class Share in %**

NK 50-100

- **Waterhazard class:** Water hazard class 3 (Self-assessment): extremely hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H336 May cause drowsiness or dizziness.  
H340 May cause genetic defects.  
H351 Suspected of causing cancer.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
R10 Flammable.  
R11 Highly flammable.  
R22 Harmful if swallowed.  
R34 Causes burns.  
R38 Irritating to skin.  
R41 Risk of serious damage to eyes.  
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R67 Vapours may cause drowsiness and dizziness.  
R68 Possible risk of irreversible effects.  
· \* **Data compared to the previous version altered.**

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