

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

- **Product identifier**
- **Trade name:** MA 4511 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:**

Quantum International
102797 invo Twin Tip Marker Black

2 Hazards identification

- **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
R36: Irritating to eyes.
 -  F; Highly flammable
R11: Highly flammable.
R52/53-67: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Vapours may cause drowsiness and dizziness.
- **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
F Highly flammable
- **Hazard-determining components of labelling:**
C. I. Solvent Orange 3
- **Risk phrases:**
 - 11 Highly flammable.
 - 36 Irritating to eyes.
 - 68 Possible risk of irreversible effects.
 - 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 - 67 Vapours may cause drowsiness and dizziness.
- **Safety phrases:**
 - 2 Keep out of the reach of children.
 - 29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

(Contd. on page 2)

Trade name: MA 4511 schwarz - black

(Contd. of page 1)

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
46 If swallowed, seek medical advice immediately and show this container or label.

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

3 Composition/information on ingredients

- **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: 64-17-5 EINECS: 200-578-6	ethanol F R11 Flam. Liq. 2, H225	50-100%
CAS: 107-98-2 EINECS: 203-539-1	1-Methoxy-2-propanol R10-67 Flam. Liq. 3, H226; STOT SE 3, H336	10-25%
CAS: 12645-31-7 EINECS: 235-741-0	Phosphoric acid mono-bis-(2-ethylhexyl)-ester C R34 Skin Corr. 1C, H314	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%
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%

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

4 First aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, 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.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:**
Water
Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Wear protective clothing.
- **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Prevent seepage into sewage system, workpits and cellars.
Inform respective authorities in case of seepage into water course or sewage system.
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.

(Contd. on page 3)

Trade name: MA 4511 schwarz - black

(Contd. of page 2)

Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents

- **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.

7 Handling and storage

- **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:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **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 (10-25%)

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.
- **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 eyes.
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.

(Contd. on page 4)

Trade name: MA 4511 schwarz - black

(Contd. of page 3)

· Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

· 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.

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· pH-value at 20°C:

5,5

· Change in condition

Melting point/Melting range:

Undetermined.

Boiling point/Boiling range:

78°C

· Flash point:

13°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:

15,0 Vol %

· Vapour pressure at 20°C:

59 hPa

· Density:

Not determined.

· Relative density

Not determined.

· Vapour density

Not determined.

· Evaporation rate

Not determined.

· Solubility in / Miscibility with water:

Not miscible or difficult to mix.

· Segregation coefficient (n-octanol/water):

Not determined.

· Viscosity:

Dynamic at 20°C:

2 mPas

Kinematic:

Not determined.

· Solvent content:

Organic solvents:

87,2 %

Solids content:

4,1 %

· Other information

No further relevant information available.

10 Stability and reactivity

· 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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(Contd. on page 5)

Trade name: MA 4511 schwarz - black

(Contd. of page 4)

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritating effect.
- **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

12 Ecological information

- **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:** Harmful to fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Harmful to aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- **European waste catalogue**

08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 01 00	wastes from MFSU and removal of paint and varnish
08 01 13*	sludges from paint or varnish containing organic solvents or other dangerous substances

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

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



- **ADR/RID class:** 3 (F1) Flammable liquids.
- **Danger code (Kemler):** 33
- **UN-Number:** 1263
- **Packaging group:** II
- **Hazard label** 3
- **UN proper shipping name:** 1263 PAINT
- **Limited quantities (LQ)** 5L
- **Tunnel restriction code** D/E

(Contd. on page 6)

EU

Trade name: MA 4511 schwarz - black

(Contd. of page 5)

• **Maritime transport IMDG:**



- **IMDG Class:** 3
- **UN Number:** 1263
- **Label** 3
- **Packaging group:** II
- **EMS Number:** F-E, S-E
- **Marine pollutant:** No
- **Proper shipping name:** PAINT

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



- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1263
- **Label** 3
- **Packaging group:** II
- **Proper shipping name:** PAINT

- **Special precautions for user Warning:** Flammable liquids.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

15 Regulatory information

- **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 2 (Self-assessment): hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.
- 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.**