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1.)	Identification of the substance/preparation and of the						
	<u>company/undertaking</u>						
	Identification of the substance or preparation						
	Trade name	-	-				
	Ink Permane	•	•				
	contained in:	•	, edding 22				
	Use of the substand Refilling ink	ce/preparation					
	Company/undertakir	g identification	ı				
	Address edding Aktiengesell Bookkoppel 7 D-22926 Ahrens						
	Telephone no.	+49 (0) 41 02	/ 80 8-0				
	Information provide +49 (0)4102 - 808-0		ie				
	Emergency telepho +49 (0)30 192 40 (1		Emergency Call	Centre Berlin)			
	Advice on Safety D		- <u>J</u> - J	,			
	sdb_info@umco.de						
2.)	Hazards identific	ation					
	Classification						
	F; R11 R52/53	Highly flamma Harmful to aq environment.		may cause long-te	erm adverse e	ffects in the aquatic	
	Hazard symbols F	Highly flamma	able				
	R phrases						
	11 52/53	 Highly flammable. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. 					
_							
3.)	Composition / inf		<u>ingredients</u>				
	Chemical characteria Mixture (preparation						
	Hazardous ingredien ETHANOL	ts					
	EC no.	200-578-6	Index no.	603-002-00-5	CAS no.	64-17-5	
	Concentration Classification	> 50 F; R11	< 70	%-b.w.			
	Hazard symbols	F	R phrases	11			
	1-METHOXY-2-PRO		Index no	602 064 00 2	CAS no.	107 09 0	
	EC no. Concentration	203-539-1 > 10	Index no. < 30	603-064-00-3 %-b.w.	CAS 110.	107-98-2	
	Classification	R10		,			
	Hazard symbols	-	R phrases	10			
	[4-[4-(diethylamino)-alpha-[4-(ethylamino)-1 naphthyl]benzylidene]cyclohexa-2,5-dien-1-ylidene]diethylammonium						
		Seite	1(7)				

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chloride, C.I. 42595, Basic Blue 7

EC no.	219-232-0	Index no	CAS no.	2390-60-5
Concentration	> 1	< 5	%-b.w.	
Classification	T; R25 Xi; I	R41 N; R50/53		
Hazard symbols	T, N	R phrases	25-41-50/53	

Other information (chapter 3.)

The data subject of this Material Safety Data sheet refer to the ink contained in this product (marker).

4.) First aid measures

General information

In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

After inhalation

Remove affected person from the immediate area. Ensure supply of fresh air.

After skin contact

Wash off immediately with soap and water. Do NOT use solvents or thinners !

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.).

After ingestion

Rinse mouth thoroughly with water. Summon a doctor immediately. Never give anything by mouth to an unconscious person.

5.) <u>Fire-fighting measures</u>

Suitable extinguishing media

Alcohol-resistant foam; extinguishing powder; Carbon dioxide; Water spray jet

Extinguishing media that must not be used for safety reasons

Full water jet

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

In the event of fire, the following can be released: Carbon dioxide (CO2) Carbon monoxide (CO)

Special protective equipment for fire-fighters

Use self-contained breathing apparatus. Wear protective clothing.

Other information

Cool endangered containers with water spray jet. Suppres gases/vapours/mists with water spray jet.

6.) <u>Accidental release measures</u>

Personal precautions

Refer to protective measures listed in sections 7 and 8. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Keep away sources of ignition.

Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

Methods for cleaning up/taking up

Take up with absorbent material (e.g., sand, kieselguhr, universal binder). Send in suitable containers for recovery or disposal.

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7.) <u>Handling and storage</u>

Handling

Advice on safe handling

Provide good ventilation of working area (local exhaust ventilation, if necessary). If workplace exposure limits are exceeded, respiratory protection approved for this particular job must be worn. Product inherent handling risks must be minimised taking the appropriate measures for protection and preventive actions. The working process should be designed to rule out the release of hazardous substances or skin contact as far it is possible by the state of the art.

Advice on protection against fire and explosion

Vapours can form an explosive mixture with air. Take precautionary measures against static charges. Keep away from sources of heat and ignition. Use explosion-proof equipment/fittings and non-sparking tools.

Storage

Requirements for storage rooms and vessels

Containers which are opened must be carefully resealed and kept upright to prevent leakage. Always keep in containers of same material as the original one.

Advice on storage assembly

Do not store together with: Acids Alcalies Oxidizing agents

Further information on storage conditions

Keep container tightly closed and dry in a cool, well-ventilated place. Protect from heat and direct sunlight.

8.) Exposure controls / personal protection

Exposure limit values ETHANOL

CAS no. EC no.	64-17-5 200-578-6	3					
Occupational Exposure Stan Ethanol	Occupational Exposure Standards (OESs) / EH40						
TWA	1920	mg/m³	1000	ml/m³			
1-METHOXY-2-PROPANOL		Ū					
CAS no. EC no.	107-98-2 203-539-1						
2000/39/EWG 1-Methoxypropanol-2 TWA STEL Skin resorption / sensibilisation	375 568 Skin	mg/m³ mg/m³	100 150	ml/m³ ml/m³			
Occupational Exposure Standards (OESs) / EH40							
1-Methoxypropan-2-ol TWA STEL Skin resorption / sensibilisation	375 560 Sk	mg/m³ mg/m³	100 150	ml/m³ ml/m³			

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Personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Hand protection

Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product . Before use, the protective glove should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves. Appropriate Material butyl rubber

Eye protection

Safety glasses with side protection shield (EN 166)

Skin protection

Clothing as usual in the chemical industry.

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Avoid contact with eyes and skin. Remove soiled or soaked clothing immediately. Do not inhale vapours. Clean skin thoroughly after work; apply skin cream.

9.) Physical and chemical properties

General information Form Colour Odour	liquid blue character	ristic		
Important health, safety and er	nvironmer	ntal informa	ation	
Changes in physical state Type Value Pressure	Boiling po > 1	oint 013	70 hPa	C
Flash point Value Method	< Abel-Pen	nsky	21	C
Vapour pressure Value Reference temperature	< 5	50	110 ℃	kPa
Density Value Reference temperature),80 - 20	1,20 ℃	g/cm³
Viscosity Type Value Method Reference temperature	DIN cup	2 -	80 °C	sec
Solvent separation test Value	<		3	%

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Other information

The physical data is that of the main component/s.

10.) Stability and reactivity

Materials to avoid

Acids; Alcalis; Oxidizing agents

Hazardous decomposition products

No hazardous decomposition products known.

11.) Toxicological information

Experience in practice

Inhalation of solvent vapours in higher concentration may lead to nausea, headache, drowsiness and dizziness.

Repeated and prolonged skin contact may cause removal of natural fat from the skin and irritation of the skin.

Other information (chapter 11.)

Product specific toxicological data are not known.

12.) Ecological information

Other adverse effects

Ecological data are not available. Do not discharge product unmonitored into the environment.

13.) Disposal considerations

Product

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

14.) <u>Transport information</u>

Land transport ADR/RID

Class Packaging group Hazard id. no. Label UN number Technical name Special Provision 640	3 II 33 3 1263 Paint related mate	Classification code	F1
Marine transport IMDG Class Packaging group UN number Proper shipping name EmS MARPOL Label	3 II 1263 Paint related mate F-E, S-E 3	ərial	

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Air transport ICAO/IATA

3
II
1263
Paint related material
3

15.) <u>Regulatory information</u>

Labelling in accordance with EC directives

The product is classified and labelled in accordance with EC Directive 1999/45/EC. The data subject of this Material Safety Data sheet refer to the ink contained in this product (marker).

Hazard symbols

F

R phrases

11	Hig

hly flammable. 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S phrases

7	Keep container tightly closed.
51	Use only in well-ventilated areas.
61	Avoid release to the environment. Refer to special instructions / Safety data sheets.

Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances

Remarks Annex I, part 2, category 7 b

Highly flammable

16.) Other information

Sources of key data used to compile the data sheet:

EC Directive 67/548/EC resp. 99/45/EC as amended in each case.

Regulation (EC) No 1907/2006 (REACH) as amended in each case.

EC Directives 2000/39/EC, 2006/15/EC as amended in each case.

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

Relevant R-phrases (chapter 3):

10	Flammable.	

- 11 Highly flammable.
- 25 Toxic if swallowed.
- Risk of serious damage to eyes. 41
- 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Department issuing safety data sheet

UMCO Umwelt Consult GmbH

Georg-Wilhelm-Str. 183 b, D-21107 Hamburg

Tel.: +49 40 / 41 92 13 00 Fax: +49 40 / 41 92 13 57 e-mail: umco@umco.de

This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.

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