

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

Trade name Permanent Marker

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

Relevant identified uses of the substance or mixture Ink for stationery products

Details of the supplier of the safety data sheet

Address

Pentel Bürobedarf-Handelsgesellschaft mbH Lademannbogen 143 22339 Hamburg GERMANY

Telephone no. +49 (0) 40 / 53 80 91 - 0

Fax no. +49 (0) 40 / 53 85 58 - 7

Information provided by / telephone +49 (0) 40 / 53 80 91 - 0

Emergency telephone

For medical advice (in German and English): +49 (0)551 192 40 (Giftinformationszentrum Nord)

Advice on Safety Data Sheet sdb_info@umco.de

2.) Hazards identification

Classification of the substance or mixture

Classification in accordance with Regulation 67/548/EEC or 1999/45/EC

R10 Xn; R20/21 Xi; R36/38

Label elements

Labelling according to Directive 1999/45/CE

Hazard symbols



Hazardous component(s) to be indicated on label, contains:

Xylene

R phrases

10	Flammable.
20/21	Harmful by inhalation and in contact with skin.
36/38	Irritating to eyes and skin.
S phrases	
2	Keep out of the reach of children.
23.3	Do not breathe vapour.
24/25	Avoid contact with skin and eyes.
S phrases 2 23.3	Keep out of the reach of children. Do not breathe vapour.

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Labelling information

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

3.) **Composition / information on ingredients**

Chemical characterization

Mixture (preparation)

Hazardous ingredients

Xylen	е
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Xylene							
EC no.	215-53	35-7	Index no.		601-022-00-9	CAS no.	1330-20-7
Concentration	>	50	<	70	%-b.w.		
Classification	R10	Xn; R20)/21 Xi; R	38			
Hazard symbols	Xn		R phra	ses	10-20/2	1-38	
1-ethoxypropan-2-ol			-				
EC no.	216-3	74-5	Index no.		603-177-00-8	CAS no.	1569-02-4
Concentration	>	5	<	10	%-b.w.		
Classification	R10	R67					
Hazard symbols	-		R phra	ses	10-67		
2-methyl propan-1-o	I						
EC no.	201-14	48-0	Index no.		603-108-00-1	CAS no.	78-83-1
Concentration	>	5	<	10	%-b.w.		
Classification	R10-X	(i; R41-Xi	; R37/38-R	67			
Hazard symbols	Xi		R phra	ses	10-37/3	8-41-67	

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 eve contact

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

After ingestion

Do not induce vomiting. Summon a doctor immediately. Never give anything by mouth to an unconscious person.

5.) **Fire-fighting measures**

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.

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Other information

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

6.) Accidental release measures

Personal precautions

Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation. Keep away sources of ignition. Do not inhale vapours. Avoid contact with skin, eyes and clothing.

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.

7.) Handling and storage

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.

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

None known

Further information on storage conditions

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



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8.)	Exposure controls / perso	onal prot	<u>ection</u>		
	Exposure limit values Xylene				
	CAS no. EC no.	1330-20- 215-535-			
	2000/39/EWG Xylene, mixed isomers, pure TWA STEL Skin resorption / sensibilisation	221 442 Skin	mg/m³ mg/m³	50 100	ml/m³ ml/m³
	List of approved workplace		limits (WELs) / EH40		
	Xylene, o-, m-, p- or mixed iso TWA STEL Skin resorption / sensibilisation 2-methyl propan-1-ol	220 441 Sk	mg/m³ mg/m³	50 100	ml/m³ ml/m³
	CAS no. EC no.	78-83-1 201-148-0	0		
	List of approved workplace 2-Methylpropan-1-ol	exposure	limits (WELs) / EH40		
	TWA STEL	154 231	mg/m³ mg/m³	50 75	ml/m³ ml/m³

Exposure controls

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.

Eye protection

Safety glasses with side protection shield (EN 166)

Skin protection

Normal chemical work clothing.

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.

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9.) <u>P</u>	Physical and chemical properties						
G	eneral information Form Colour Odour	liquid product specific solvent-like					
In	nportant health, safety and er	vironmental inform	nation				
	Changes in physical state Type Value	Boiling point 108		°C			
	Flash point Value	24,1		°C			
	Density Value Reference temperature	0,98 20	° C	g/cm³			
	Viscosity Type Value Reference temperature Type Value Reference temperature	dynamic 2,4 20 kinematic 2,45 20	°C ° C	mPa*s mm²/s			

10.) Stability and reactivity

Conditions to avoid

Protect from sun.

Materials to avoid

None known.

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. Irritating to eyes.

Other information (chapter 11.)

Product specific toxicological data are not known.

12.) Ecological information

Other information

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.

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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.

Transport information 14.)

Transport ADR/RID/ADN Class Classification code Packing group Hazard identification no. UN number Technical name Special Provision 640 Tunnel restriction code Label	3 F1 II 33 1263 PAINT 640D D/E 3
Transport IMDG Class Packing group UN number Proper shipping name EmS Label	3 II 1263 PAINT F-E+S-E 3
Transport ICAO/IATA Class Packing group UN number Proper shipping name Label	3 II 1263 Paint 3

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

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

EU regulations

Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances Remarks Annex I, part 2, category 6

16.) **Other information**

Relevant R-phrases (chapter 3):

10	Flammable.
20/21	Harmful by inhalation and in contact with skin.
37/38	Irritating to respiratory system and skin.
38	Irritating to skin.
41	Risk of serious damage to eyes.
67	Vapours may cause drowsiness and dizziness.

Department issuing safety data sheet

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This information is based on our present state of knowledge. However, it should not constitute a

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guarantee for any specific product properties and shall not establish a legally valid relationship.