

Trade name: edding Permanent Marker Refill Ink T25, T100, T1000, MTK25 (blue) contained in: edding 400

Current version : 4.1.0, issued: 14.03.2012

Replaced version: 4.0.0, issued: 10.12.2010

Region: GB

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

1.1 Product identifier

Trade name

**edding Permanent Marker Refill Ink T25, T100, T1000, MTK25 (blue)
contained in: edding 400**

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

Relevant identified uses of the substance or mixture

Refilling ink

1.3 Details of the supplier of the safety data sheet

Address

edding Aktiengesellschaft
Bookkoppel 7
D-22926 Ahrensburg

Telephone no. +49 (0) 41 02 / 80 8-0

Information provided by / telephone

+49 (0)4102 - 808-0

Advice on Safety Data Sheet

sdb_info@umco.de

1.4 Emergency telephone number

For medical advice (in German and English):

+49 (0)30 30686 790 (Giftnotruf Berlin)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

R10

R67

2.2 Label elements

Labelling according to Directive 1999/45/EC

Hazard symbols

-

R phrases

10

Flammable.

67

Vapours may cause drowsiness and dizziness.

S phrases

2

Keep out of the reach of children.

46

If swallowed, seek medical advice immediately and show this container or label.

51

Use only in well-ventilated areas.

2.3 Other hazards

No data available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable. The product is not a substance.

3.2 Mixtures

Chemical characterization

Mixture (preparation)

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Hazardous ingredients

No	Substance name		Additional information	
	CAS / EC / Index / REACH no	Classification 67/548/EEC	Concentration	%-b.w.
1	1-METHOXY-2-PROPANOL			
	107-98-2 203-539-1 603-064-00-3 -	R10 R67	> 80,00 - < 85,00	%-b.w.
2	hydrogen [tris[[[3-[(2-ethylhexyl)oxy]propyl]amino]sulphonyl]-29H,31H phthalocyaninesulphonato(3-)-N-{29}-,N-{30}-,N-{31}-,N-{32}]cuprate(1-), compound with 3-[(2-ethylhexyl)oxy]propylamine (1:1) C.I. Solvent Blue 70			
	94277-77-7 304-661-9 - -	R52/53	> 1,00 - < 5,00	%-b.w.

Full Text for all R-phrases: pls. see section 16

3.3 Other information

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

SECTION 4: First aid measures

4.1 Description of 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.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

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

Unsuitable extinguishing media

Full water jet

5.2 Special hazards arising from the substance or mixture

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

5.3 Advice for firefighters

Use self-contained breathing apparatus. Cool endangered containers with water spray jet. Wear protective clothing. Suppress gases/vapours/mists with water spray jet.

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

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.

For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

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

6.4 Reference to other sections

No data available.

SECTION 7: Handling and storage

7.1 Precautions for safe 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.

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.

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.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

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

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; Alkalies; Oxidizing agents

7.3 Specific end use(s)

No data available.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

No	Substance name	CAS no.	EC no.		
1	1-METHOXY-2-PROPANOL	107-98-2	203-539-1		
	2000/39/EWG				
	1-Methoxypropanol-2				
	STEL	568	mg/m ³	150	ml/m ³
	TWA	375	mg/m ³	100	ml/m ³
	Skin resorption / sensibilisation		Skin		
	List of approved workplace exposure limits (WELs) / EH40				
	1-Methoxypropan-2-ol				
	STEL	560	mg/m ³	150	ml/m ³
	TWA	375	mg/m ³	100	ml/m ³
	Skin resorption / sensibilisation		Sk		

8.2 Exposure controls

Appropriate engineering controls

No data available.

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.

Eye / face protection

Safety glasses with side protection shield (EN 166)

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 gloves 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

Material thickness 0,5 mm

Breakthrough time > 240 min.

Other

Normal chemical work clothing.

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form/Colour
liquid
blue
Odour
characteristic

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Odour threshold	
No data available	
pH value	
No data available	
Boiling point / boiling range	
Value	> 100 °C
Reference pressure	1013 hPa
Melting point / melting range	
No data available	
Decomposition point / decomposition range	
No data available	
Flash point	
Value	> 23 - 55 °C
Method	Abel-Pensky
Auto-ignition temperature	
No data available	
Oxidising properties	
No data available	
Explosive properties	
No data available	
Flammability (solid, gas)	
No data available	
Lower flammability or explosive limits	
No data available	
Upper flammability or explosive limits	
No data available	
Vapour pressure	
Value	< 110 kPa
Reference temperature	50 °C
Vapour density	
No data available	
Evaporation rate	
No data available	
Relative density	
No data available	
Density	
Value	0,90 - 1,40 g/cm ³
Reference temperature	20 °C

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Solubility in water	
No data available	

Solubility(ies)	
No data available	

Partition coefficient: n-octanol/water	
No data available	

Viscosity	
Value	12 - 222 sec
Reference temperature	20 °C
Type	Efflux time
Method	DIN cup 4 mm

Solvent separation test	
Value	< 3 %
Reference temperature	20 °C

9.2 Other information

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

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

No data available.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Heat

10.5 Incompatible materials

Acids; Alcalis; Oxidizing agents

10.6 Hazardous decomposition products

No hazardous decomposition products known.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity
No data available
Acute dermal toxicity
No data available
Acute inhalational toxicity
No data available
Skin corrosion/irritation
No data available
Serious eye damage/irritation
No data available
Respiratory or skin sensitisation
No data available
Germ cell mutagenicity
No data available
Reproduction toxicity
No data available
Carcinogenicity
No data available
STOT-single exposure
No data available
STOT-repeated exposure
No data available
Aspiration hazard
No data available
Delayed and immediate effects as well as chronic effects from short and long-term exposure
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.

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SECTION 12: Ecological information

12.1 Toxicity

Fish toxicity
No data available
Daphnia toxicity
No data available
Algae toxicity
No data available
Bacteria toxicity
No data available

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available.

12.7 Other information

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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.

SECTION 14: Transport information

14.1 Transport ADR/RID/ADN

Class	3
Classification code	F1
Packing group	III
Hazard identification no.	30
UN number	UN1263
Technical name	PAINT RELATED MATERIAL
Special Provision 640	640E
Tunnel restriction code	D/E
Label	3

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14.2 Transport IMDG

Class	3
Packing group	III
UN number	UN1263
Proper shipping name	PAINT RELATED MATERIAL
EmS	F-E+S-E
Label	3

14.3 Transport ICAO-TI / IATA

Class	3
Packing group	III
UN number	UN1263
Proper shipping name	Paint related material
Label	3

14.4 Other information

No data available.

14.6 Special precautions for user

No data available.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

SECTION 15: Regulatory information

15.1 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

15.2 Chemical safety assessment

No data available.

SECTION 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), 1272/2008 (CLP) as amended in each case.

EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EC

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.

Full text of the R-, H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

R10	Flammable.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R67	Vapours may cause drowsiness and dizziness.

Department issuing safety data sheet

UMCO Umwelt Consult GmbH

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

Tel.: +49 40 / 79 02 36 300 Fax: +49 40 / 79 02 36 357 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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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name

edding Permanent Marker Refill Ink T25, T100, T1000, MTK25 (red) contained in: edding 400

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

Relevant identified uses of the substance or mixture

Refilling ink

1.3 Details of the supplier of the safety data sheet

Address

edding Aktiengesellschaft
Bookkoppel 7
D-22926 Ahrensburg

Telephone no. +49 (0) 41 02 / 80 8-0

Information provided by / telephone

+49 (0)4102 - 808-0

Advice on Safety Data Sheet

sdb_info@umco.de

1.4 Emergency telephone number

For medical advice (in German and English):

+49 (0)30 30686 790 (Giftnotruf Berlin)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

R10

R67

N; R51/53

2.2 Label elements

Labelling according to Directive 1999/45/EC

Hazard symbols



Dangerous for the environment

R phrases

10

Flammable.

51/53

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

67

Vapours may cause drowsiness and dizziness.

S phrases

2

Keep out of the reach of children.

29

Do not empty into drains.

46

If swallowed, seek medical advice immediately and show this container or label.

51

Use only in well-ventilated areas.

61

Avoid release to the environment. Refer to special instructions / Safety data sheets.

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2.3 Other hazards

No data available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable. The product is not a substance.

3.2 Mixtures

Chemical characterization

Mixture (preparation)

Hazardous ingredients

No	Substance name	Additional information	
	CAS / EC / Index / REACH no	Classification 67/548/EEC	Concentration
			%-b.w.
1	1-METHOXY-2-PROPANOL		
	107-98-2 203-539-1 603-064-00-3 -	R10 R67	> 75,00 - < 80,00 %-b.w.
2	9-[2-(ethoxycarbonyl)phenyl]-3,6-bis(ethylamino)-2,7 dimethylxanthylium ethyl sulphate		
	26694-69-9 247-906-4 - -	Xn; R22 Xi; R41 N; R50/53	> 2,50 - < 5,00 %-b.w.

Full Text for all R-phrases: pls. see section 16

3.3 Other information

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

SECTION 4: First aid measures

4.1 Description of 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.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

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

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Unsuitable extinguishing media

Full water jet

5.2 Special hazards arising from the substance or mixture

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

5.3 Advice for firefighters

Use self-contained breathing apparatus. Cool endangered containers with water spray jet. Wear protective clothing. Suppress gases/vapours/mists with water spray jet.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

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.

For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

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

6.4 Reference to other sections

No data available.

SECTION 7: Handling and storage

7.1 Precautions for safe 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 as possible by the state of the art.

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.

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.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

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

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; Alkalies; Oxidizing agents

7.3 Specific end use(s)

No data available.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

No	Substance name	CAS no.	EC no.		
1	1-METHOXY-2-PROPANOL	107-98-2	203-539-1		
	2000/39/EWG				
	1-Methoxypropanol-2				
	STEL	568	mg/m ³	150	ml/m ³
	TWA	375	mg/m ³	100	ml/m ³
	Skin resorption / sensibilisation		Skin		
	List of approved workplace exposure limits (WELs) / EH40				
	1-Methoxypropan-2-ol				
	STEL	560	mg/m ³	150	ml/m ³
	TWA	375	mg/m ³	100	ml/m ³
	Skin resorption / sensibilisation		Sk		

8.2 Exposure controls

Appropriate engineering controls

No data available.

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.

Eye / face protection

Safety glasses with side protection shield (EN 166)

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 gloves 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

Material thickness		0,5	mm
Breakthrough time	>	240	min.

Other

Normal chemical work clothing.

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form/Colour
liquid
red
Odour
characteristic

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Odour threshold	
No data available	
pH value	
No data available	
Boiling point / boiling range	
Value	> 100 °C
Reference pressure	1013 hPa
Melting point / melting range	
No data available	
Decomposition point / decomposition range	
No data available	
Flash point	
Value	23 - 55 °C
Method	Abel-Pensky
Auto-ignition temperature	
No data available	
Oxidising properties	
No data available	
Explosive properties	
No data available	
Flammability (solid, gas)	
No data available	
Lower flammability or explosive limits	
No data available	
Upper flammability or explosive limits	
No data available	
Vapour pressure	
Value	< 110 kPa
Reference temperature	50 °C
Vapour density	
No data available	
Evaporation rate	
No data available	
Relative density	
No data available	
Density	
Value	0,90 - 1,40 g/cm ³
Reference temperature	20 °C

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Solubility in water	
No data available	

Solubility(ies)	
No data available	

Partition coefficient: n-octanol/water	
No data available	

Viscosity	
Value	12 - 222 sec
Reference temperature	20 °C
Type	Efflux time
Method	DIN cup 4 mm

Solvent separation test	
Value	< 3 %
Reference temperature	20 °C

9.2 Other information

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

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

No data available.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

Acids; Alcalis; Oxidizing agents

10.6 Hazardous decomposition products

No hazardous decomposition products known.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity
No data available
Acute dermal toxicity
No data available
Acute inhalational toxicity
No data available
Skin corrosion/irritation
No data available
Serious eye damage/irritation
No data available
Respiratory or skin sensitisation
No data available
Germ cell mutagenicity
No data available
Reproduction toxicity
No data available
Carcinogenicity
No data available
STOT-single exposure
No data available
STOT-repeated exposure
No data available
Aspiration hazard
No data available
Delayed and immediate effects as well as chronic effects from short and long-term exposure
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.

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SECTION 12: Ecological information

12.1 Toxicity

Fish toxicity
No data available
Daphnia toxicity
No data available
Algae toxicity
No data available
Bacteria toxicity
No data available

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available.

12.7 Other information

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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.

SECTION 14: Transport information

14.1 Transport ADR/RID/ADN

Class	3
Classification code	F1
Packing group	III
Hazard identification no.	30
UN number	UN1263
Technical name	PAINT RELATED MATERIAL
Special Provision 640	640E
Tunnel restriction code	D/E
Label	3
Environmentally hazardous substance mark	Symbol "fish and tree"

Trade name: edding Permanent Marker Refill Ink T25, T100, T1000, MTK25 (red) contained in: edding 400

Current version : 4.1.0, issued: 14.03.2012

Replaced version: 4.0.0, issued: 10.12.2010

Region: GB

14.2 Transport IMDG

Class	3
Packing group	III
UN number	UN1263
Proper shipping name	PAINT RELATED MATERIAL
EmS	F-E+S-E
Label	3
Marine pollutant mark	Symbol "fish and tree"

14.3 Transport ICAO-TI / IATA

Class	3
Packing group	III
UN number	UN1263
Proper shipping name	Paint related material
Label	3

14.4 Other information

No data available.

14.6 Special precautions for user

No data available.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

SECTION 15: Regulatory information

15.1 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

15.2 Chemical safety assessment

No data available.

SECTION 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), 1272/2008 (CLP) as amended in each case.

EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EC

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.

Full text of the R-, H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

R10	Flammable.
R22	Harmful if swallowed.
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.

Department issuing safety data sheet

UMCO Umwelt Consult GmbH

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

Tel.: +49 40 / 79 02 36 300 Fax: +49 40 / 79 02 36 357 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.

Trade name: edding Permanent Marker Refill Ink T25, T100, T1000, MTK25 (red) contained in: edding 400

Current version : 4.1.0, issued: 14.03.2012

Replaced version: 4.0.0, issued: 10.12.2010

Region: GB

Trade name: edding Permanent Marker Refill Ink T25, T100, T1000, MTK25 (black), contained in: edding 400

Current version : 5.1.0, issued: 14.03.2012

Replaced version: 5.0.0, issued: 14.12.2011

Region: GB

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

1.1 Product identifier

Trade name

edding Permanent Marker Refill Ink T25, T100, T1000, MTK25 (black), contained in: edding 400

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

Relevant identified uses of the substance or mixture

Refilling ink

1.3 Details of the supplier of the safety data sheet

Address

edding Aktiengesellschaft
Bookkoppel 7
D-22926 Ahrensburg

Telephone no. +49 (0) 41 02 / 80 8-0

Information provided by / telephone

+49 (0)4102 - 808-0

Advice on Safety Data Sheet

sdb_info@umco.de

1.4 Emergency telephone number

For medical advice (in German and English):

+49 (0)30 30686 790 (Giftnotruf Berlin)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

F; R11

R67

2.2 Label elements

Labelling according to Directive 1999/45/EC

Hazard symbols



Highly flammable

R phrases

11

Highly flammable.

67

Vapours may cause drowsiness and dizziness.

S phrases

2

Keep out of the reach of children.

29

Do not empty into drains.

46

If swallowed, seek medical advice immediately and show this container or label.

51

Use only in well-ventilated areas.

2.3 Other hazards

No data available.

Trade name: edding Permanent Marker Refill Ink T25, T100, T1000, MTK25 (black), contained in: edding 400

Current version : 5.1.0, issued: 14.03.2012

Replaced version: 5.0.0, issued: 14.12.2011

Region: GB

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable. The product is not a substance.

3.2 Mixtures

Chemical characterization

Mixture (preparation)

Hazardous ingredients

No	Substance name		Additional information	
	CAS / EC / Index / REACH no	Classification 67/548/EEC	Concentration	%-b.w.
1	1-METHOXY-2-PROPANOL			
	107-98-2 203-539-1 603-064-00-3 -	R10 R67	> 40,00 - < 45,00	%-b.w.
2	ethanol			
	64-17-5 200-578-6 603-002-00-5 -	F; R11	> 10,00 - < 30,00	%-b.w.
3	Poly(oxy-1,2-ethanediyl), .alpha.-decyl-.omega.-hydroxy-, phosphate			
	52019-36-0 - - -	Xi; R38 Xi; R41	> 1,00 - < 5,00	%-b.w.

Full Text for all R-phrases: pls. see section 16

3.3 Other information

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

SECTION 4: First aid measures

4.1 Description of 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.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

Trade name: edding Permanent Marker Refill Ink T25, T100, T1000, MTK25 (black), contained in: edding 400

Current version : 5.1.0, issued: 14.03.2012

Replaced version: 5.0.0, issued: 14.12.2011

Region: GB

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

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

Unsuitable extinguishing media

Full water jet

5.2 Special hazards arising from the substance or mixture

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

5.3 Advice for firefighters

Use self-contained breathing apparatus. Wear protective clothing. Cool endangered containers with water spray jet. Suppress gases/vapours/mists with water spray jet.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

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.

For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

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

6.4 Reference to other sections

No data available.

SECTION 7: Handling and storage

7.1 Precautions for safe 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 as possible by the state of the art.

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.

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.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

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

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; Alkalies; Oxidizing agents

Trade name: edding Permanent Marker Refill Ink T25, T100, T1000, MTK25 (black), contained in: edding 400

Current version : 5.1.0, issued: 14.03.2012

Replaced version: 5.0.0, issued: 14.12.2011

Region: GB

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

No	Substance name	CAS no.	EC no.
1	1-METHOXY-2-PROPANOL	107-98-2	203-539-1
	2000/39/EWG		
	1-Methoxypropanol-2		
	STEL	568	mg/m ³ 150 ml/m ³
	TWA	375	mg/m ³ 100 ml/m ³
	Skin resorption / sensibilisation		
	Skin		
	List of approved workplace exposure limits (WELs) / EH40		
	1-Methoxypropan-2-ol		
	STEL	560	mg/m ³ 150 ml/m ³
	TWA	375	mg/m ³ 100 ml/m ³
	Skin resorption / sensibilisation		
	Sk		
2	ethanol	64-17-5	200-578-6
	List of approved workplace exposure limits (WELs) / EH40		
	Ethanol		
	TWA	1920	mg/m ³ 1000 ml/m ³

8.2 Exposure controls

Appropriate engineering controls

No data available.

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.

Eye / face protection

Safety glasses with side protection shield (EN 166)

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 gloves 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

Other

Normal chemical work clothing.

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form/Colour
liquid
black
Odour
characteristic

Trade name: edding Permanent Marker Refill Ink T25, T100, T1000, MTK25 (black), contained in: edding 400

Current version : 5.1.0, issued: 14.03.2012

Replaced version: 5.0.0, issued: 14.12.2011

Region: GB

Odour threshold			
No data available			
pH value			
No data available			
Boiling point / boiling range			
Value	>	70	°C
Reference pressure		1013	hPa
Melting point / melting range			
No data available			
Decomposition point / decomposition range			
No data available			
Flash point			
Value		18 - 21	°C
Auto-ignition temperature			
No data available			
Oxidising properties			
No data available			
Explosive properties			
No data available			
Flammability (solid, gas)			
No data available			
Lower flammability or explosive limits			
No data available			
Upper flammability or explosive limits			
No data available			
Vapour pressure			
Value	<	110	kPa
Reference temperature		50	°C
Vapour density			
No data available			
Evaporation rate			
No data available			
Relative density			
No data available			
Density			
Value		0,80 - 1,20	g/cm ³
Reference temperature		20	°C
Solubility in water			
No data available			
Solubility(ies)			
No data available			
Partition coefficient: n-octanol/water			
No data available			
Viscosity			
Value		12 - 80	sec
Reference temperature		20	°C
Type	Efflux time		
Method	DIN cup 4 mm		

Trade name: edding Permanent Marker Refill Ink T25, T100, T1000, MTK25 (black), contained in: edding 400

Current version : 5.1.0, issued: 14.03.2012

Replaced version: 5.0.0, issued: 14.12.2011

Region: GB

Solvent separation test	
Value	< 3 %

9.2 Other information

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

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

No data available.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

Acids; Alcalis; Oxidizing agents

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity	
LD50	5660 mg/kg
Species	rat
Reference substance	CAS 107-98-2

Acute dermal toxicity	
LD50	9999,9 mg/kg
Species	rabbit
Reference substance	CAS 107-98-2

Acute inhalational toxicity	
Remarks	No data available.

Trade name: edding Permanent Marker Refill Ink T25, T100, T1000, MTK25 (black), contained in: edding 400

Current version : 5.1.0, issued: 14.03.2012

Replaced version: 5.0.0, issued: 14.12.2011

Region: GB

Skin corrosion/irritation
No data available
Serious eye damage/irritation
No data available
Respiratory or skin sensitisation
No data available
Germ cell mutagenicity
No data available
Reproduction toxicity
No data available
Carcinogenicity
No data available
STOT-single exposure
No data available
STOT-repeated exposure
No data available
Aspiration hazard
No data available
Delayed and immediate effects as well as chronic effects from short and long-term exposure
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.

SECTION 12: Ecological information

12.1 Toxicity

Fish toxicity
No data available
Daphnia toxicity
No data available
Algae toxicity
No data available
Bacteria toxicity
No data available

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available.

12.7 Other information

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

Trade name: edding Permanent Marker Refill Ink T25, T100, T1000, MTK25 (black), contained in: edding 400

Current version : 5.1.0, issued: 14.03.2012

Replaced version: 5.0.0, issued: 14.12.2011

Region: GB

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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.

SECTION 14: Transport information

14.1 Transport ADR/RID/ADN

Class	3
Classification code	F1
Packing group	II
Hazard identification no.	33
UN number	UN1263
Technical name	PAINT RELATED MATERIAL
Special Provision 640	640D
Tunnel restriction code	D/E
Label	3

14.2 Transport IMDG

Class	3
Packing group	II
UN number	UN1263
Proper shipping name	PAINT RELATED MATERIAL
EmS	F-E+S-E
Label	3

14.3 Transport ICAO-TI / IATA

Class	3
Packing group	II
UN number	UN1263
Proper shipping name	Paint related material
Label	3

14.4 Other information

No data available.

14.6 Special precautions for user

No data available.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

SECTION 15: Regulatory information

15.1 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 7 b

15.2 Chemical safety assessment

No data available.

Trade name: edding Permanent Marker Refill Ink T25, T100, T1000, MTK25 (black), contained in: edding 400

Current version : 5.1.0, issued: 14.03.2012

Replaced version: 5.0.0, issued: 14.12.2011

Region: GB

SECTION 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), 1272/2008 (CLP) as amended in each case.

EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EC

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.

Full text of the R-, H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

R10	Flammable.
R11	Highly flammable.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R67	Vapours may cause drowsiness and dizziness.

Department issuing safety data sheet

UMCO Umwelt Consult GmbH

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

Tel.: +49 40 / 79 02 36 300 Fax: +49 40 / 79 02 36 357 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.

Trade name: edding Permanent Marker Refill Ink T25, T100, T1000, MTK25 (green) contained in: edding 400

Current version : 3.1.0, issued: 14.03.2012

Replaced version: 3.0.0, issued: 10.12.2010

Region: GB

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

1.1 Product identifier

Trade name

**edding Permanent Marker Refill Ink T25, T100, T1000, MTK25 (green)
contained in: edding 400**

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

Relevant identified uses of the substance or mixture

Refilling ink

1.3 Details of the supplier of the safety data sheet

Address

edding Aktiengesellschaft
Bookkoppel 7
D-22926 Ahrensburg

Telephone no. +49 (0) 41 02 / 80 8-0

Information provided by / telephone

+49 (0)4102 - 808-0

Advice on Safety Data Sheet

sdb_info@umco.de

1.4 Emergency telephone number

For medical advice (in German and English):

+49 (0)30 30686 790 (Giftnotruf Berlin)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

R10

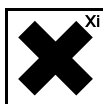
R43

R67

2.2 Label elements

Labelling according to Directive 1999/45/EC

Hazard symbols



Irritant

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

Amines, C12-14-branched alkyl, 4-[(5-cyano-1-ethyl-5,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-1,3-benzenedisulfonate C.I. Solvent Yellow 146

R phrases

10

Flammable.

43

May cause sensitisation by skin contact.

67

Vapours may cause drowsiness and dizziness.

S phrases

2

Keep out of the reach of children.

24

Avoid contact with skin.

37

Wear suitable gloves.

46

If swallowed, seek medical advice immediately and show this container or label.

51

Use only in well-ventilated areas.

Trade name: edding Permanent Marker Refill Ink T25, T100, T1000, MTK25 (green) contained in: edding 400

Current version : 3.1.0, issued: 14.03.2012

Replaced version: 3.0.0, issued: 10.12.2010

Region: GB

2.3 Other hazards

No data available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable. The product is not a substance.

3.2 Mixtures

Chemical characterization

Mixture (preparation)

Hazardous ingredients

No	Substance name		Additional information	
	CAS / EC / Index / REACH no	Classification 67/548/EEC	Concentration	%-b.w.
1	1-METHOXY-2-PROPANOL			
	107-98-2 203-539-1 603-064-00-3 -	R10 R67	> 75,00 - < 80,00	%-b.w.
2	hydrogen [tris[[[3-[(2-ethylhexyl)oxy]propyl]amino]sulphonyl]-29H,31H phthalocyaninesulphonato(3-)-N-(29)-,N-(30)-,N-(31)-,N-(32)]cuprate(1-), compound with 3-[(2-ethylhexyl)oxy]propylamine (1:1) C.I. Solvent Blue 70			
	94277-77-7 304-661-9 -	R52/53	> 5,00 - < 10,00	%-b.w.
3	Amines, C12-14-branched alkyl, 4-[(5-cyano-1-ethyl-5,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-1,3-benzenedisulfonate C.I. Solvent Yellow 146			
	94279-65-9 304-811-3 -	Xi; R36 N; R51/53 R43	> 1,00 - < 5,00	%-b.w.
4	C.I. Solvent Orange			
	- - -	N; R50/53 R43	< 0,25	%-b.w.

Full Text for all R-phrases: pls. see section 16

3.3 Other information

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

SECTION 4: First aid measures

4.1 Description of 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.).

Trade name: edding Permanent Marker Refill Ink T25, T100, T1000, MTK25 (green) contained in: edding 400

Current version : 3.1.0, issued: 14.03.2012

Replaced version: 3.0.0, issued: 10.12.2010

Region: GB

After ingestion

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

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

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

Unsuitable extinguishing media

Full water jet

5.2 Special hazards arising from the substance or mixture

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

5.3 Advice for firefighters

Use self-contained breathing apparatus. Cool endangered containers with water spray jet. Wear protective clothing. Suppress gases/vapours/mists with water spray jet.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

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.

For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

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

6.4 Reference to other sections

No data available.

SECTION 7: Handling and storage

7.1 Precautions for safe 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 as possible by the state of the art.

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.

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.

Trade name: edding Permanent Marker Refill Ink T25, T100, T1000, MTK25 (green) contained in: edding 400

Current version : 3.1.0, issued: 14.03.2012

Replaced version: 3.0.0, issued: 10.12.2010

Region: GB

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

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

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; Alkalies; Oxidizing agents

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

No	Substance name	CAS no.	EC no.
1	1-METHOXY-2-PROPANOL	107-98-2	203-539-1
	2000/39/EWG		
	1-Methoxypropanol-2		
	STEL	568	mg/m ³ 150 ml/m ³
	TWA	375	mg/m ³ 100 ml/m ³
	Skin resorption / sensibilisation	Skin	
	List of approved workplace exposure limits (WELs) / EH40		
	1-Methoxypropan-2-ol		
	STEL	560	mg/m ³ 150 ml/m ³
	TWA	375	mg/m ³ 100 ml/m ³
	Skin resorption / sensibilisation	Sk	

8.2 Exposure controls

Appropriate engineering controls

No data available.

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.

Eye / face protection

Safety glasses with side protection shield (EN 166)

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 gloves 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		
Material thickness		0,5	mm
Breakthrough time	>	240	min.

Other

Normal chemical work clothing.

Environmental exposure controls

No data available.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form/Colour			
liquid			
green			
Odour			
characteristic			
Odour threshold			
No data available			
pH value			
No data available			
Boiling point / boiling range			
Value	>	100	°C
Reference pressure		1013	hPa
Melting point / melting range			
No data available			
Decomposition point / decomposition range			
No data available			
Flash point			
Value		23 - 55	°C
Method		Abel-Pensky	
Auto-ignition temperature			
No data available			
Oxidising properties			
No data available			
Explosive properties			
No data available			
Flammability (solid, gas)			
No data available			
Lower flammability or explosive limits			
No data available			
Upper flammability or explosive limits			
No data available			
Vapour pressure			
Value	<	110	kPa
Reference temperature		50	°C
Vapour density			
No data available			
Evaporation rate			
No data available			
Relative density			
No data available			
Density			
Value		0,90 - 1,40	g/cm ³
Reference temperature		20	°C

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Solubility in water	
No data available	

Solubility(ies)	
No data available	

Partition coefficient: n-octanol/water	
No data available	

Viscosity	
Value	12 - 222 sec
Reference temperature	20 °C
Type	Efflux time
Method	DIN cup 4 mm

Solvent separation test	
Value	< 3 %
Reference temperature	20 °C

9.2 Other information

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

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

No data available.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

Acids; Alcalis; Oxidizing agents

10.6 Hazardous decomposition products

No hazardous decomposition products known.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity
No data available
Acute dermal toxicity
No data available
Acute inhalational toxicity
No data available
Skin corrosion/irritation
No data available
Serious eye damage/irritation
No data available
Respiratory or skin sensitisation
No data available
Germ cell mutagenicity
No data available
Reproduction toxicity
No data available
Carcinogenicity
No data available
STOT-single exposure
No data available
STOT-repeated exposure
No data available
Aspiration hazard
No data available
Delayed and immediate effects as well as chronic effects from short and long-term exposure
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.

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SECTION 12: Ecological information

12.1 Toxicity

Fish toxicity
No data available
Daphnia toxicity
No data available
Algae toxicity
No data available
Bacteria toxicity
No data available

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available.

12.7 Other information

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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.

SECTION 14: Transport information

14.1 Transport ADR/RID/ADN

Class	3
Classification code	F1
Packing group	III
Hazard identification no.	30
UN number	UN1263
Technical name	PAINT RELATED MATERIAL
Special Provision 640	640E
Tunnel restriction code	D/E
Label	3

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14.2 Transport IMDG

Class	3
Packing group	III
UN number	UN1263
Proper shipping name	PAINT RELATED MATERIAL
EmS	F-E+S-E
Label	3

14.3 Transport ICAO-TI / IATA

Class	3
Packing group	III
UN number	UN1263
Proper shipping name	Paint related material
Label	3

14.4 Other information

No data available.

14.6 Special precautions for user

No data available.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

SECTION 15: Regulatory information

15.1 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

15.2 Chemical safety assessment

No data available.

SECTION 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), 1272/2008 (CLP) as amended in each case.

EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EC

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.

Full text of the R-, H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

R10	Flammable.
R36	Irritating to eyes.
R43	May cause sensitisation by skin contact.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R67	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 guarantee for any specific product properties and shall not establish a legally valid relationship.