

Trade name: edding permanent Ink (green) contained in: edding 21, edding 22

Current version : 4.0.0, issued: 03.03.2015

Replaced version: 3.1.0, issued: 14.03.2012

Region: GB

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

1.1 Product identifier

Trade name

edding permanent Ink (green) contained in: edding 21, edding 22

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 International GmbH

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 Regulation (EC) No 1272/2008 (CLP)

Flam. Liq. 2; H225

STOT SE 3; H336

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

F; R11

R67

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)

Hazard pictograms



GHS02



GHS07

Signal word

Danger

Hazardous component(s) to be indicated on label:

1-methoxy-2-propanol

Hazard statements

H225

Highly flammable liquid and vapour.

H336

May cause drowsiness or dizziness.

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Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P271	Use only outdoors or in a well-ventilated area.
P370+P378	In case of fire: Use water spray, extinguishing powder, foam or CO2 for extinction.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local and national regulations.

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	Classification (EC) 1272/2008 (CLP)	Concentration	
1	ethanol				
	64-17-5 200-578-6 603-002-00-5 -	F; R11	Flam. Liq. 2; H225	> 50.00 - < 70.00	%-b.w.
2	1-methoxy-2-propanol				
	107-98-2 203-539-1 603-064-00-3 -	R10 R67	Flam. Liq. 3; H226 STOT SE 3; H336	> 25.00 - < 30.00	%-b.w.

Full Text for all R-phrases , H-phrases and EUH-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

Remove contact lens. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). Seek medical assistance.

After ingestion

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

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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

High power 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. Suppress gases/vapours/mists with water spray jet. Wear protective clothing.

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. Do not discharge into the subsoil/soil.

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). 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 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. 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.

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Requirements for storage rooms and vessels

Containers which are opened must be carefully closed 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; Alkalis; 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	ethanol	64-17-5	200-578-6
List of approved workplace exposure limits (WELs) / EH40			
Ethanol			
	TWA	1920	1000
		mg/m ³	ml/m ³
2	1-methoxy-2-propanol	107-98-2	203-539-1
2000/39/EWG			
1-Methoxypropanol-2			
	STEL	568	150
	TWA	375	100
	Skin resorption / sensibilisation	Skin	
List of approved workplace exposure limits (WELs) / EH40			
1-Methoxypropan-2-ol			
	STEL	560	150
	TWA	375	100
	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	>	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

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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	- 80	sec
Reference temperature		20	°C
Type	Efflux time		
Method	DIN cup 4 mm		
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

Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

Acids; Alkalis; 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			
No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
LD50		6200	mg/kg bodyweight
Species	rat		
Source	Manufacturer		
2	1-methoxy-2-propanol	107-98-2	203-539-1
LD50		5660	mg/kg bodyweight
Species	rat		
Source	Manufacturer		
Acute dermal toxicity			
No	Substance name	CAS no.	EC no.
1	1-methoxy-2-propanol	107-98-2	203-539-1
LD50		9999.99	mg/kg bodyweight
Species	rabbit		
Source	Manufacturer		

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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.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish (acute)			
No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
LC50		8150	mg/l
Duration of exposure		96	h
Species	Leuciscus idus		
Source	Manufacturer		
Toxicity to fish (chronic)			
No data available			
Toxicity to Daphnia (acute)			
No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
EC50		9268 - 14221	mg/l
Duration of exposure		48	h
Species	Daphnia magna		
Source	Manufacturer		

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Toxicity to Daphnia (chronic)
No data available
Toxicity to algae (acute)
No data available
Toxicity to algae (chronic)
No data available
Bacteria toxicity
No data available

12.2 Persistence and degradability

Biodegradability			
No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
Value			%
Source		Manufacturer	
Evaluation		readily biodegradable	

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

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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.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

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

Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

REACH candidate list of substances of very high concern (SVHC) for authorisation

According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, PREPARATIONS AND ARTICLES

The product is considered being subject to REACH regulation (EC) 1907/2006 annexe XVII.	No 3, 40
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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

For this mixture a chemical safety assessment has not been carried out.

SECTION 16: Other information

Sources of key data used to compile the data sheet:

EC Directive 67/548/EC resp. 1999/45/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/EU

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.

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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.
R67	Vapours may cause drowsiness and dizziness.
H226	Flammable liquid and vapour.

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 and experience.
The security data sheet describes products with a view to the security requirements.
However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.

Alterations/supplements:

Alterations to the previous edition are marked in the left-hand margin.

Trade name: edding Ink Permanent (red) contained in: edding 21, edding 22

Current version : 1.1.0, issued: 03.12.2015

Replaced version: 1.0.0, issued: 14.10.2014

Region: GB

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

1.1 Product identifier

Trade name

edding Ink Permanent (red) contained in: edding 21, edding 22

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

Relevant identified uses of the substance or mixture

Refilling ink

Uses advised against

No data available.

1.3 Details of the supplier of the safety data sheet

Address

edding International GmbH

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 Regulation (EC) No 1272/2008 (CLP)

Flam. Liq. 3; H226

STOT SE 3; H336

Classification information

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:

Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP

Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)

Hazard pictograms



GHS02



GHS07

Signal word

Warning

Hazardous component(s) to be indicated on label:

1-methoxy-2-propanol

Hazard statements

H226

Flammable liquid and vapour.

H336

May cause drowsiness or dizziness.

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Region: GB

Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P271	Use only outdoors or in a well-ventilated area.
P370+P378	In case of fire: Use water spray, extinguishing powder, foam or CO2 for extinction.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local and national regulations.

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 (EC) 1272/2008 (CLP)	Concentration %
1	1-methoxy-2-propanol		
	107-98-2 203-539-1 603-064-00-3 -	Flam. Liq. 3; H226 STOT SE 3; H336	< 75.00 %-b.w.
2	ethanol		pls. refer to footnote (1)
	64-17-5 200-578-6 603-002-00-5 -	Flam. Liq. 2; H225 Eye Irrit. 2; H319	< 10.00 %-b.w.

Full Text for all H-phrases and EUH-phrases: pls. see section 16

(1) Aberrant from/in addition to the classification set out in Annex VI, this substance is classified according to European Regulation (EC) No 1272/2008 (CLP), Article 4 (3), paragraph 2.

No	Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
2	-	Eye Irrit. 2; H319: C >= 50%	-	-

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.).

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After ingestion

Rinse out mouth and give plenty of water to drink. Call 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

High power 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. Suppress gases/vapours/mists with water spray jet. Wear protective clothing.

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. Do not discharge into the subsoil/soil.

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. Use explosion-proof equipment/fittings and non-sparking tools.

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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 closed 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; Alkalis; 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	
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		
Material thickness		0.5	mm
Breakthrough time	>	240	min.

Other

Normal chemical work clothing.

Trade name: edding Ink Permanent (red) contained in: edding 21, edding 22

Current version : 1.1.0, issued: 03.12.2015

Replaced version: 1.0.0, issued: 14.10.2014

Region: GB

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			
Odour threshold			
No data available			
pH value			
Value	appr.	6.9	
Boiling point / boiling range			
Value	appr.	108	°C
Reference pressure		1013	hPa
Melting point / melting range			
No data available			
Decomposition point / decomposition range			
No data available			
Flash point			
Value	appr.	28	°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	appr.	0.944	g/cm ³
Reference temperature		20	°C

Trade name: edding Ink Permanent (red) contained in: edding 21, edding 22

Current version : 1.1.0, issued: 03.12.2015

Replaced version: 1.0.0, issued: 14.10.2014

Region: GB

Solubility in water	
No data available	

Solubility(ies)	
No data available	

Partition coefficient: n-octanol/water	
No data available	

Viscosity			
Value	appr.	13	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

Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions

Formation of hydrogen gas upon contact with materials to avoid. Explosion hazard.

10.4 Conditions to avoid

Heat, naked flames and other ignition sources. Protect from humid air and water.

10.5 Incompatible materials

Acids; Alkalis; Oxidizing agents

10.6 Hazardous decomposition products

Hydrogen

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity			
No	Substance name	CAS no.	EC no.
1	1-methoxy-2-propanol	107-98-2	203-539-1
LD50		5660	mg/kg bodyweight
Species	rat		
Source	Manufacturer		

Acute dermal toxicity			
No	Substance name	CAS no.	EC no.
1	1-methoxy-2-propanol	107-98-2	203-539-1
LD50		9999.99	mg/kg bodyweight
Species	rabbit		
Source	Manufacturer		

Trade name: edding Ink Permanent (red) contained in: edding 21, edding 22

Current version : 1.1.0, issued: 03.12.2015

Replaced version: 1.0.0, issued: 14.10.2014

Region: GB

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.

Trade name: edding Ink Permanent (red) contained in: edding 21, edding 22

Current version : 1.1.0, issued: 03.12.2015

Replaced version: 1.0.0, issued: 14.10.2014

Region: GB

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish (acute)
No data available
Toxicity to fish (chronic)
No data available
Toxicity to Daphnia (acute)
No data available
Toxicity to Daphnia (chronic)
No data available
Toxicity to algae (acute)
No data available
Toxicity to algae (chronic)
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
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.

Trade name: edding Ink Permanent (red) contained in: edding 21, edding 22

Current version : 1.1.0, issued: 03.12.2015

Replaced version: 1.0.0, issued: 14.10.2014

Region: GB

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.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user

No data available.

14.7 Transport in bulk according to Annex II of Marpol 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

Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

REACH candidate list of substances of very high concern (SVHC) for authorisation

According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, PREPARATIONS AND ARTICLES

The product is considered being subject to REACH regulation (EC) 1907/2006 annexe XVII.	No 3, 40
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Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances

This product is subject to Part I of Annex I, risk category:	P5c
--	-----

Trade name: edding Ink Permanent (red) contained in: edding 21, edding 22

Current version : 1.1.0, issued: 03.12.2015

Replaced version: 1.0.0, issued: 14.10.2014

Region: GB

15.2 Chemical safety assessment

No data available.

SECTION 16: Other information

Sources of key data used to compile the data sheet:

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

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

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 H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.

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 and experience.

The security data sheet describes products with a view to the security requirements.

However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.

Alterations/supplements:

Alterations to the previous edition are marked in the left-hand margin.

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Trade name: edding permanent ink (black) contained in: edding 21, edding 22

Current version : 5.1.0, issued: 23.11.2015

Replaced version: 5.0.0, issued: 20.07.2015

Region: GB

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

1.1 Product identifier

Trade name

edding permanent ink (black) contained in: edding 21, edding 22

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

Relevant identified uses of the substance or mixture

Refilling ink

Uses advised against

No data available.

1.3 Details of the supplier of the safety data sheet

Address

edding International GmbH

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 Regulation (EC) No 1272/2008 (CLP)

Eye Irrit. 2; H319

Flam. Liq. 2; H225

STOT SE 3; H336

Classification information

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:

Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP

Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)

Hazard pictograms



GHS02



GHS07

Signal word

Danger

Hazardous component(s) to be indicated on label:

1-methoxy-2-propanol

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Hazard statements

H225 Highly flammable liquid and vapour.
 H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
 P102 Keep out of reach of children.
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P271 Use only outdoors or in a well-ventilated area.
 P370+P378 In case of fire: Use water spray, extinguishing powder, foam or CO2 for extinction.
 P405 Store locked up.
 P501 Dispose of contents/container in accordance with local and national regulations.

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 (EC) 1272/2008 (CLP)	Concentration %
1	1-methoxy-2-propanol		
	107-98-2 203-539-1 603-064-00-3 -	Flam. Liq. 3; H226 STOT SE 3; H336	< 45.00 %-b.w.
2	ethanol		pls. refer to footnote (1)
	64-17-5 200-578-6 603-002-00-5 -	Flam. Liq. 2; H225 Eye Irrit. 2; H319	< 30.00 %-b.w.
3	Poly(oxy-1,2-ethanediyl), alpha-decyl-omega-hydroxy-, phosphate		
	52019-36-0 - - -	Eye Dam. 1; H318 Skin Irrit. 2; H315	< 3.00 %-b.w.

Full Text for all H-phrases and EUH-phrases: pls. see section 16

(1) Aberrant from/in addition to the classification set out in Annex VI, this substance is classified according to European Regulation (EC) No 1272/2008 (CLP), Article 4 (3), paragraph 2.

No	Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
2	-	Eye Irrit. 2; H319: C \geq 50%	-	-

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.

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Replaced version: 5.0.0, issued: 20.07.2015

Region: GB

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

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). Seek medical assistance.

After ingestion

Rinse out mouth and give plenty of water to drink. Call 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

High power 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

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

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. Do not discharge into the subsoil/soil.

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).

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.

Trade name: edding permanent ink (black) contained in: edding 21, edding 22

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Replaced version: 5.0.0, issued: 20.07.2015

Region: GB

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 closed 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; Alkalis; 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		
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		
Material thickness		0.5	mm
Breakthrough time	>	240	min.

Trade name: edding permanent ink (black) contained in: edding 21, edding 22

Current version : 5.1.0, issued: 23.11.2015

Replaced version: 5.0.0, issued: 20.07.2015

Region: GB

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			
Odour threshold			
No data available			
pH value			
Value	appr.	4	
Boiling point / boiling range			
Value	appr.	75	°C
Reference pressure		1013	hPa
Melting point / melting range			
No data available			
Decomposition point / decomposition range			
No data available			
Flash point			
Value	appr.	18	°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

Trade name: edding permanent ink (black) contained in: edding 21, edding 22

Current version : 5.1.0, issued: 23.11.2015

Replaced version: 5.0.0, issued: 20.07.2015

Region: GB

Vapour density
No data available

Evaporation rate
No data available

Relative density
No data available

Density			
Value	appr.	0.928	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	appr.	12	sec
Reference temperature		20	°C
Type	Efflux time		
Method	DIN cup 4 mm		

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

Heat, naked flames and other ignition sources. Moisture.

10.5 Incompatible materials

Acids; Alkalis; Oxidizing agents

10.6 Hazardous decomposition products

Hydrogen

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity			
No	Substance name	CAS no.	EC no.
1	1-methoxy-2-propanol	107-98-2	203-539-1
LD50		5660	mg/kg bodyweight
Species	rat		
Source	Manufacturer		

Trade name: edding permanent ink (black) contained in: edding 21, edding 22

Current version : 5.1.0, issued: 23.11.2015

Replaced version: 5.0.0, issued: 20.07.2015

Region: GB

Acute dermal toxicity			
No	Substance name	CAS no.	EC no.
1	1-methoxy-2-propanol	107-98-2	203-539-1
LD50		9999.99	mg/kg bodyweight
Species	rabbit		
Source	Manufacturer		
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.			

Trade name: edding permanent ink (black) contained in: edding 21, edding 22

Current version : 5.1.0, issued: 23.11.2015

Replaced version: 5.0.0, issued: 20.07.2015

Region: GB

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish (acute)
No data available
Toxicity to fish (chronic)
No data available
Toxicity to Daphnia (acute)
No data available
Toxicity to Daphnia (chronic)
No data available
Toxicity to algae (acute)
No data available
Toxicity to algae (chronic)
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
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.

Trade name: edding permanent ink (black) contained in: edding 21, edding 22

Current version : 5.1.0, issued: 23.11.2015

Replaced version: 5.0.0, issued: 20.07.2015

Region: GB

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.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user

No data available.

14.7 Transport in bulk according to Annex II of Marpol 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

Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

REACH candidate list of substances of very high concern (SVHC) for authorisation

According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, PREPARATIONS AND ARTICLES

The product is considered being subject to REACH regulation (EC) 1907/2006 annexe XVII.	No 3, 40
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Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances

This product is subject to Part I of Annex I, risk category:	P5b
--	-----

Trade name: edding permanent ink (black) contained in: edding 21, edding 22

Current version : 5.1.0, issued: 23.11.2015

Replaced version: 5.0.0, issued: 20.07.2015

Region: GB

15.2 Chemical safety assessment

For this mixture a chemical safety assessment has not been carried out.

SECTION 16: Other information

Sources of key data used to compile the data sheet:

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

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

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 H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H318	Causes serious eye damage.

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 and experience.

The security data sheet describes products with a view to the security requirements.

However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.

Alterations/supplements:

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

1.1 Product identifier

Trade name

edding Ink Permanent (blue) contained in: edding 21, edding 22

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

Relevant identified uses of the substance or mixture

Refilling ink

Uses advised against

No data available.

1.3 Details of the supplier of the safety data sheet

Address

edding International GmbH

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 Regulation (EC) No 1272/2008 (CLP)

Fam. Liq. 2; H225

STOT SE 3; H336

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

F; R11

R67

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)

Hazard pictograms



GHS02



GHS07

Signal word

Danger

Hazardous component(s) to be indicated on label:

1-methoxy-2-propanol

Hazard statements

H225

Highly flammable liquid and vapour.

H336

May cause drowsiness or dizziness.

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Precautionary statements

- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P271 Use only outdoors or in a well-ventilated area.
- P370+P378 In case of fire: Use water spray, extinguishing powder, foam or CO2 for extinction.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local and national regulations.

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	Classification (EC) 1272/2008 (CLP)	Concentration	
1	ethanol				
	64-17-5 200-578-6 603-002-00-5 -	F; R11	Flam. Liq. 2; H225	> 50.00 - < 70.00	%-b.w.
2	1-methoxy-2-propanol				
	107-98-2 203-539-1 603-064-00-3 -	R10 R67	Flam. Liq. 3; H226 STOT SE 3; H336	> 25.00 - < 30.00	%-b.w.

Full Text for all R-phrases , H-phrases and EUH-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

Remove contact lens. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). Seek medical assistance.

After ingestion

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

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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

High power 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

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

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. Do not discharge into the subsoil/soil.

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). 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.

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Requirements for storage rooms and vessels

Containers which are opened must be carefully closed 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; Alkalis; 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	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
2	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			
blue			
Odour			
characteristic			
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

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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	- 80	sec
Reference temperature		20	°C
Type	Efflux time		
Method	DIN cup 4 mm		
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

Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

Acids; Alkalis; Oxidizing agents

10.6 Hazardous decomposition products

Hydrogen

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity			
No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
LD50		6200	mg/kg bodyweight
Species	rat		
Source	Manufacturer		
2	1-methoxy-2-propanol	107-98-2	203-539-1
LD50		5660	mg/kg bodyweight
Species	rat		
Source	Manufacturer		
Acute dermal toxicity			
No	Substance name	CAS no.	EC no.
1	1-methoxy-2-propanol	107-98-2	203-539-1
LD50		9999.99	mg/kg bodyweight
Species	rabbit		
Source	Manufacturer		

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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.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish (acute)			
No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
LC50		8150	mg/l
Duration of exposure		96	h
Species	Leuciscus idus		
Source	Manufacturer		
Toxicity to fish (chronic)			
No data available			
Toxicity to Daphnia (acute)			
No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
EC50		9268 - 14221	mg/l
Duration of exposure		48	h
Species	Daphnia magna		
Source	Manufacturer		

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Toxicity to Daphnia (chronic)
No data available
Toxicity to algae (acute)
No data available
Toxicity to algae (chronic)
No data available
Bacteria toxicity
No data available

12.2 Persistence and degradability

Biodegradability			
No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
Value			%
Source		Manufacturer	
Evaluation		readily biodegradable	

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

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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.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

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

Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

REACH candidate list of substances of very high concern (SVHC) for authorisation

According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, PREPARATIONS AND ARTICLES

The product is considered being subject to REACH regulation (EC) 1907/2006 annexe XVII.	No 3, 40
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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

For this mixture a chemical safety assessment has not been carried out.

SECTION 16: Other information

Sources of key data used to compile the data sheet:

EC Directive 67/548/EC resp. 1999/45/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/EU

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.

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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.
R67	Vapours may cause drowsiness and dizziness.
H226	Flammable liquid and vapour.

Department issuing safety data sheet

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This information is based on our present state of knowledge and experience.
The security data sheet describes products with a view to the security requirements.
However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.

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