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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 400

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

Relevant identified uses of the substance or mixture

Refill ink

Uses advised against

No data available.

Details of the supplier of the safety data sheet 1.3

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

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







Signal word

Danger

Hazardous component(s) to be indicated on label:

1-methoxy-2-propanol

Hazard statement(s)



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

Precautionary statement(s)

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 to extinguish.

P405 Store locked up.

P501 Dispose of contents/container to a facility 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			on			
	CAS / EC / Index /	Classification (EC) 1272/2008 (CLP)	Cond	centration		%
	REACH no					
1	ethanol					
	64-17-5	Flam. Liq. 2; H225	>=	25.00 - <	50.00	%-b.w.
	200-578-6	Eye Irrit. 2; H319				
	603-002-00-5					
	01-2119457610-43					
2	1-methoxy-2-propa	inol				
	107-98-2	Flam. Liq. 3; H226	>=	25.00 - <	50.00	%-b.w.
	203-539-1	STOT SE 3; H336				
	603-064-00-3					
	01-2119457435-					
	35-0034					

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

No	Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
1	-	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.



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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

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 at the work area (local exhaust ventilation, if necessary). Avoid formation of aerosols.

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.

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						
	WEL long-term (8-hr TWA reference period)	1920	mg/m³	1000	ppm		
2	1-methoxy-2-propanol	107-98-2		203-539-1			
	2000/39/EC						
	1-Methoxypropanol-2						
	WEL short-term (15 min reference period)	568	mg/m³	150	ppm		
	WEL long-term (8-hr TWA reference period)	375	mg/m³	100	ppm		
	Skin resorption / sensibilisation	Skin					
	List of approved workplace exposure limits (WELs) /	EH40					
	1-Methoxypropan-2-ol						
	WEL short-term (15 min reference period)	560	mg/m³	150	ppm		
	WEL long-term (8-hr TWA reference period)	375	mg/m³	100	ppm		
	Comments	Sk	•	•			

DNEL, DMEL and PNEC values

DNEL values (worker)

No	Substance name			CAS / EC no	
	Route of exposure	Exposure time	Effect	Value	
1	ethanol			64-17-5	
				200-578-6	
	dermal	Long term (chronic)	systemic	343	mg/kg/day
	inhalative	Long term (chronic)	systemic	950	mg/m³
2	1-methoxy-2-propanol			107-98-2	
				203-539-1	
	dermal	Long term (chronic)	systemic	50.6	mg/kg/day
	inhalative	Long term (chronic)	systemic	369	mg/m³
	inhalative	Short term (acut)	local	553.5	mg/m³

DNEL value (consumer)

	BITEL Talas (Solisalis)				
No	Substance name			CAS / EC	
	Route of exposure	Exposure time	Effect	Value	
1	ethanol		64-17-5		
				200-578-	6
	oral	Long term (chronic)	systemic	87	mg/kg/day
	dermal	Long term (chronic)	systemic	206	mg/kg/day
	inhalative	Long term (chronic)	systemic	114	mg/m³
2	1-methoxy-2-propanol			107-98-2	
				203-539-	1
	oral	Long term (chronic)	systemic	3.3	mg/kg/day
	dermal	Long term (chronic)	systemic	18.1	mg/kg/day



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inhalative Long term (chronic) systemic 43.9 mg/m³	
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PNEC values

No	Substance name		CAS / EC no	
	ecological compartment	Type	Value	
1	ethanol		64-17-5	
			200-578-6	
	water	fresh water	0.96	mg/L
	water	marine water	0.79	mg/L
	water	fresh water sediment	3.6	mg/kg dry
				weight
	water	marine water sediment	2.9	mg/L
	water	Aqua intermittent	2.75	mg/L
	soil	-	0.63	mg/kg dry
				weight
	sewage treatment plant	-	580	mg/L
	secondary poisoning	-	0.38	mg/kg food
2	1-methoxy-2-propanol		107-98-2	
			203-539-1	
	water	fresh water	10	mg/L
	water	marine water	1	mg/L
	water	Aqua intermittent	100	mg/L
	water	fresh water sediment	52.3	mg/kg
	with reference to: dry weight			
	water	marine water sediment	5.2	mg/kg
	with reference to: dry weight		•	
	soil	-	5.49	mg/kg
	with reference to: dry weight			
	sewage treatment plant	-	100	mg/L

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 workstation 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.

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	



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Odour				
characteristic				
Odour threshold				
No data available				
pH value				
No data available				
Boiling point / boiling range				
Value		78	°C	
Melting point / melting range No data available				
Decomposition point / decomposition range No data available	е			
Flash point				
Value		13	°C	
Ignition temperature	•			
Value Value		287	°C	
Auto-ignition temperature				
Comments	Product is not se	Itigniting.		
Oxidising properties No data available				
Explosive properties				
The product does not have explosive propertie	S.			
Flammability (solid, gas) No data available				
Lower flammability or explosive limits				
Value		1.7	% vol	
Upper flammability or explosive limits				
Value		15	% vol	
	-		75 75.	
Vapour pressure Value		59	hPa	
Reference temperature		20	°C	
Vapour density				
No data available				
Evaporation rate				
No data available				
Relative density				
No data available				
Density				
Value		0.86	g/cm³	
Reference temperature		20	°C	
Solubility in water	_			
Comments	Completely misc	ible		
Solubility(ies)				
No data available				
Partition coefficient: n-octanol/water				
No Substance name	CA	S no.	EC no	D



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1 ethanol	64-17-5 200-578-6	
log Pow	-0.35	
Reference temperature	24 °C	
with reference to	pH 7,4	
Method	OECD 107	
Source	ECHA	

Viscosity	
No data available	
Solvent content	

Solids content			
Value	18	%	

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

Heat, naked flames and other ignition sources.

10.5 Incompatible materials

No data available.

10.6 Hazardous decomposition products

No data available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acu	te oral toxicity			
No	Substance name	CAS no.		EC no.
1	ethanol	64-17-5		200-578-6
LD5	0		10470	mg/kg bodyweight
Spe	cies	rat		
with	reference to	95% ethanol in water		
Met	hod	OECD 401		
Sou	rce	ECHA		
2	1-methoxy-2-propanol	107-98-2		203-539-1
LD5	0		4016	mg/kg bodyweight
Spe	cies	rat		
Met	hod	EC 440/2008, B.1		
Sou	rce	ECHA		

Acute dermal toxicity					
No	Substance name		CAS no.		EC no.
1	1-methoxy-2-propanol		107-98-2		203-539-1
LD5	0	>		2000	mg/kg bodyweight
Spec	cies	rat			



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Method	440/2008/EC B.3.
Source	ECHA

Acu	Acute inhalational toxicity					
No	Substance name		CAS no.		EC no.	
1	ethanol		64-17-5		200-578-6	
LC5	0			124.7	mg/l	
Dura	ation of exposure			4	h	
State	e of aggregation	Vapour				
Spe	cies	rat				
Meth	nod	OECD 403				
Soul	rce	ECHA				

Skin	Skin corrosion/irritation						
No	Substance name		CAS no.		EC no.		
1	ethanol		64-17-5		200-578-6		
Dura	ition of exposure			24	h		
Spec	cies	rabbit					
Meth	nod	OECD 404					
Sour	ce	ECHA					
Eval	uation	non-irritant					
2	1-methoxy-2-propanol		107-98-2		203-539-1		
Spec	cies	rabbit					
Meth	nod	EC 440/2008	, B.4				
Sour	ce	ECHA					
Eval	uation	non-irritant					

Serious eye damage/irritation					
No	Substance name	CAS no.	EC no.		
1	ethanol	64-17-5	200-578-6		
Spe	cies	rabbit			
Met	hod	OECD 405			
Sou	rce	ECHA			
Eval	luation	irritant			
2	1-methoxy-2-propanol	107-98-2	203-539-1		
Spe	cies	rabbit			
Met	hod	2004/73/EEC, B.5			
Sou	rce	ECHA			
Eval	luation	non-irritant			

Res	Respiratory or skin sensitisation					
No	Substance name	CAS no.	EC no.			
1	ethanol	64-17-5	200-578-6			
Rou	te of exposure	Skin				
Spe	cies	mouse				
Soul	rce	ECHA				
Eval	uation	non-sensitizing				
2	1-methoxy-2-propanol	107-98-2	203-539-1			
Rou	te of exposure	Skin				
Spe	cies	guinea pig				
Method		440/2008/EC B.6				
Source		ECHA				
Eval	uation	non-sensitizing				

Ger	Germ cell mutagenicity					
No	Substance name	CAS no.	EC no.			
1	ethanol	64-17-5	200-578-6			
Soul	rce	ECHA				
Eval	uation/classification	Based on available data, the classification criteria are not met.				

Rep	roduction toxicity			
No	Substance name	CAS no.	EC no.	



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1 ethanol	64-17-5 200-578-6
Route of exposure	oral
NOAEL	
Type of examination	2 generation study
Species	mouse
Source	ECHA
Evaluation/classification	Based on available data, the classification criteria are not met.

Card	Carcinogenicity					
No	Substance name	CAS no.	EC no.			
1	ethanol	64-17-5	200-578-6			
Sou	rce	ECHA				
Evaluation/classification Based on available data, the classi			ication criteria are not met.			

STOT - single exposure	
No data available	

STO	STOT - repeated exposure							
No	Substance name	CAS no.		EC no.				
1	ethanol	64-17-5		200-578-6				
Rou	te of exposure	oral						
Dura	tion of exposure		14	week/s				
Spec	cies	rat						
Targ	et organ	kidneys						
Meth	nod	OECD 408						
Soul	ce	ECHA						
Eval	uation/classification	Based on available data	a, the classificatio	n criteria are not met.				

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

Toxi	Toxicity to fish (acute)							
No	Substance name	CAS no.		EC no.				
1	ethanol	64-17-5		200-578-6				
LC5	0		14200	mg/l				
Dura	ation of exposure		96	h				
Spe	cies	Pimephales promelas						
Meth	nod	EPA						
Soul	rce	ECHA						

Toxicity to fish (chronic) No data available

Toxi	Toxicity to Daphnia (acute)							
No	Substance name	CAS no.		EC no.				
1	ethanol	64-17-5		200-578-6				
EC5	50	>	10000	mg/l				
Dura	ation of exposure		48	h				
Spe	cies	Daphnia magna						
Method		DIN 38412 T.11						
Sou	rce	ECHA						

Tox	Toxicity to Daphnia (chronic)						
No	Substance name	CAS no.	EC no.				
1	ethanol	64-17-5	200-578-6				



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NOEC		9.6	mg/l
Duration of exposure		9	day(s)
Species	Daphnia magna		
Source	ECHA		

Tox	Toxicity to algae (acute)							
No	Substance name	CAS no.		EC no.				
1	ethanol	64-17-5		200-578-6				
EC5	0		275	mg/l				
Dura	ation of exposure		72	h				
Spe	cies	Chlorella vulgaris						
Method		OECD 201						
Sou	rce	ECHA						

Toxicity to algae (chronic)	
No data available	

Bacteria toxicity	
No data available	

12.2 Persistence and degradability

	orolotorios aria acgradability				
Biod	degradability				
No	Substance name	CAS no.	CAS no.		
1	ethanol	64-17-5		200-578-6	
Туре)	aerobic biodegradation			
Valu	е	appr.	84	%	
Dura	ation		20	day(s)	
Meth	nod	OECD		• • •	
Soul	rce	ECHA			
Eval	uation	readily biodegradable			
2	1-methoxy-2-propanol	107-98-2		203-539-1	
Туре		aerobic biodegradation			
Valu	e		96	%	
Dura	ation		28	day(s)	
Meth	nod	OECD 301 E			
Soul	rce	ECHA			
Eval	uation	readily biodegradable			

12.3 Bioaccumulative potential

Part	Partition coefficient: n-octanol/water							
No	Substance name		CAS no.		EC no.			
1	ethanol		64-17-5		200-578-6			
log F	Pow			-0.35				
Refe	erence temperature			24	°C			
with	reference to	pH 7,4						
Metl	nod	OECD 107						
Sou	rce	ECHA						

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



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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

Proper shipping 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



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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

No 3, 40

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

Chemical safety assessment

A chemical safety assessment has not been carried out for this mixture.

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)

Flammable liquid and vapour. H226

Department issuing safety data sheet

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This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

Alterations/supplements:

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

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