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

1.1 Product identifier

Trade name

edding Porcelain marker ink (steel blue) contained in: edding 4200

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

Relevant identified uses of the substance or mixture Ink for use in drawliners 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) Skin Sens. 1; H317

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 Warning

Hazardous component(s) to be indicated on label:

1,3,5-tris(2-hydroxyethyl)-1,3,5-triazinane

1,2-benzisothiazol-3(2H)-one

Hazard statements

H317

May cause an allergic skin reaction.



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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.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
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	Substance name		Additional informa	ation
	CAS / EC / Index /	Classification (EC) 1272/2008 (CLP)	Concentration	%
	REACH no			
1	ethanediol			
	107-21-1	Acute Tox. 4*; H302	< 2.50	%-b.w.
	203-473-3			
	603-027-00-1			
	-			
2	ammonia, anhydro			
	7664-41-7	Acute Tox. 3*; H331	< 0.50	%-b.w.
	231-635-3	Aquatic Acute 1; H400		
	007-001-00-5	Flam. Gas 2; H221		
	-	Press. Gas		
		Skin Corr. 1B; H314		
3		vethyl)-1,3,5-triazinane		
	4719-04-4	Acute Tox. 4*; H302	< 0.50	%-b.w.
	225-208-0	Skin Sens. 1; H317		
	613-114-00-6			
	-			
4	ammonia, anhydro			
	7664-41-7	Acute Tox. 3; H331	< 0.50	%-b.w.
	231-635-3	Aquatic Acute 1; H400		
	007-001-00-5	Skin Corr. 1B; H314		
	01-2119488876-14	,		
		Flam. Gas 2; H221		
5	1,2-benzisothiazol-			
	2634-33-5	Acute Tox. 4*; H302	< 0.50	%-b.w.
	220-120-9	Aquatic Acute 1; H400		
	613-088-00-6	Eye Dam. 1; H318		
	-	Skin Irrit. 2; H315		
		Skin Sens. 1; H317		
6	glycerol			
	56-81-5	-	< 5.00	%-b.w.
	200-289-5			
	-			
	-			

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

(*,**,****) Detailed explanation pls. refer to CLP regulation No. 1272/2008, annex VI, 1.2



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No	Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
2	U	-	-	-
3	-	Skin Sens. 1; H317: C >= 0.1%	-	-
4	U	Skin Irrit. 2; H315: C >= 1%	M = 1	-
		Skin Corr. 1B; H314: C >= 5%		
		Aquatic Acute 1; H400: C >= 25%		
5	-	Skin Sens. 1; H317: C >= 0.05%	-	-

Full text for the notes: pls. see section 16 "Notes relating to the identification, classification and labelling of substances ((EC) No 1272/2008, Annex VI)".

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.

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 mouth thoroughly with water. Do not induce vomiting. 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. Wear protective clothing. Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

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



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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). If workplace exposure limits are exceeded, respiratory protection approved for this particular job must be worn.

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.

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.

7.3 Specific end use(s)

No data available.



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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

No	Substance name	CAS no.		EC no.			
1	glycerol	56-81-5		200-289	-5		
	List of approved workplace exposure limit	s (WELs) / EH40					
	Glycerol mist						
	TŴA	10	mg/m³				
2	ethanediol	107-21-1		203-473	-3		
	2000/39/EWG						
	Ethylene glycol						
	STEL	104	mg/m³	40	ml/m³		
	TWA	52	mg/m ³	20	ml/m³		
	Skin resorption / sensibilisation	Skin					
	List of approved workplace exposure limit	s (WELs) / EH40					
	Ethane 1,2-diol						
	particulate						
	TWA	10	mg/m³				
	Skin resorption / sensibilisation	Sk					
	List of approved workplace exposure limits (WELs) / EH40						
	Ethane 1,2-diol						
	vapour						
	STEL	104	mg/m³				
	TWA	52	mg/m ³				
	Skin resorption / sensibilisation	Sk					
3	ammonia, anhydrous	7664-41-7	1	231-635	-3		
	List of approved workplace exposure limit	s (WELs) / EH40					
	Ammonia						
	STEL	25	mg/m³	35	ml/m³		
	TWA	18	mg/m ³	25	ml/m³		
	2000/39/EWG						
	Ammonia, anhydrous						
	STEL	36	mg/m³	50	ml/m³		
	TWA	14	mg/m ³	20	ml/m³		
4	ammonia, anhydrous	7664-41-7		231-635	-3		
	List of approved workplace exposure limits (WELs) / EH40						
	Ammonia						
	STEL	25	mg/m³	35	ml/m³		
	TWA	18	mg/m ³	25	ml/m³		
	2000/39/EWG		~				
	Ammonia, anhydrous						
	STEL	36	mg/m³	50	ml/m³		
	TWA	14	mg/m ³	20	ml/m ³		

DNEL and PNEC values

DNEL values (worker)

No	Substance name			CAS / EC no	
	Route of exposure Exposure time Effect		Effect	Value	
1	ammonia, anhydrous	mmonia, anhydrous			
	dermal	Short term (acut)	systemic	231-635-3 6.8	mg/kg/day
	dermal	Long term (chronic)	systemic	6.8	mg/kg/day
	inhalative	Short term (acut)	systemic	47.6	mg/m ³
	inhalative	Short term (acut)	local	36	mg/m³
	inhalative	Long term (chronic)	systemic	47.6	mg/m³
	inhalative	Long term (chronic)	local	14	mg/m³



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	DNEL value (consumer)					
No	Substance name			CAS/EC	no	
	Route of exposure Exposure time Effect			Value		
1	ammonia, anhydrous			7664-41- 231-635-		
	oral	Short term (acut)	systemic	6.8	mg/kg/day	
	oral	Long term (chronic)	systemic	6.8	mg/kg/day	
	dermal	Short term (acut)	systemic	68	mg/cm ²	
	dermal	Long term (chronic)	systemic	68	mg/cm ²	
	inhalative	Short term (acut)	systemic	23.8	mg/m³	
	inhalative	Short term (acut)	local	7.2	mg/m³	
	inhalative	Long term (chronic)	systemic	23.8	mg/m ³	
	inhalative	Long term (chronic)	local	2.8	mg/m³	

PNEC values

No	Substance name		CAS / EC no
	ecological compartment	Туре	Value
1	ammonia, anhydrous		7664-41-7
			231-635-3
	water	fresh water	0.0011 mg/l
	water	marine water	0.0011 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 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.

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	
dark blue	
Odour	
characteristic	



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Odour threshold No data available					
pH value No data available					
Boiling point / boiling range					
No data available					
Melting point / melting range					
No data available					
Decomposition point / decomposition range					
No data available					
Flash point					
No data available					
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					
No data available					
Vapour density					
No data available					
Evaporation rate					
No data available					
Relative density					
No data available					
Density					
No data available					
Solubility in water No data available					
Solubility(ies) No data available					
Partition coefficient: n-octanol/water No Substance name	C	AS no.		EC no.	
1 1,2-benzisothiazol-3(2H)-one		634-33-5		220-120-9	
log Pow	Manufacturer		1.3		
Source	ivianuiacturer				



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Viscosity

No data available

9.2 Other information

Other information No data available.

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

No	Product Name					
1	edding Porcelain marker ink (steel blue) contained in: edding 4200					
Remarks The result of the applied calculation method according to the European Regulation (EC) 1272/2008 (CLP), Paragraph 3.1.3.6, Part 3 of Annex I is outside the values that imply a classification / labelling of this mixture according to table 3.1.1 defining the respective categories (ATE oral > 2000 mg/kg).						
Acu	te oral toxicity					
No	Substance name	CAS no.		EC no.		
1	1,2-benzisothiazol-3(2H)-one	2634-33-5		220-120-9		
LD5	i0		1193	mg/kg bodyweight		
Spe	cies	rat				
Source Manufacturer						

Acu				
No	Substance name	CAS no.		EC no.
1	1,2-benzisothiazol-3(2H)-one	2634-33-5		220-120-9
LD5	0		4115	mg/kg bodyweight
Spe	cies	rat		
Sou	rce	Manufacturer		



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Αςι	ite inhalational toxicity (result o	of the ATE calculation for the mixture)
	Product Name	
1	edding Porcelain marker ink (in: edding 4200	steel blue) contained
Rer	narks	The result of the applied calculation method according to the European Regulation (EC) 1272/2008 (CLP), Paragraph 3.1.3.6, Part 3 of Annex I is outside the values that imply a classification / labelling of this mixture according to table 3.1.1 defining the respective categories (ATE for inhalation: > 20.000 ppmV (gases), > 20 mg/l (vapours), > 5 mg/l (dusts/mists).
	te inhalational toxicity	
No	data available	
-	n corrosion/irritation	
No	data available	
	ious eye damage/irritation	
No	data available	
Res	piratory or skin sensitisation	
No	data available	
	m cell mutagenicity	
No	data available	
Rep	production toxicity	
No	data available	
Car	cinogenicity	
No	data available	
	OT-single exposure	
No	data available	
	OT-repeated exposure	
No	data available	
-	piration hazard	
No	data available	

SECTION 12: Ecological information

12.1 Toxicity

Tavi	Toxicity to fish (acute)				
		CAC ===		FO no	
No	Substance name	CAS no.		EC no.	
1	1,2-benzisothiazol-3(2H)-one	2634-33-5		220-120-9	
LC50			2.18	mg/l	
Duration of exposure			96	h	
Species		Oncorhynchus mykiss			
Method		OECD 203			
Sour	rce	Manufacturer			
Toxicity to fish (chronic)					
No d	lata available				
Toxi	icity to Daphnia (acute)				
No	Substance name	CAS no.		EC no.	
1	1,2-benzisothiazol-3(2H)-one	2634-33-5		220-120-9	
EC5	0		2.94	mg/l	
Dura	ation of exposure		48	h	
Species		Daphnia magna			
Method		OECD 202			
Source		Manufacturer			



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Toxicity to Daphnia (chronic) No data available Toxicity to algae (acute) No Substance name CAS no. EC no. 1,2-benzisothiazol-3(2H)-one 2634-33-5 220-120-9 1 ErC50 0.11 mg/l Duration of exposure 72 h Species Pseudokirchneriella subcapitata Method **OECD 201** Manufacturer Source Toxicity to algae (chronic) No data available Bacteria toxicity

No data available

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water				
No	Substance name	CAS no.	EC no.	
1	1,2-benzisothiazol-3(2H)-one	2634-33-5	220-120-9	
log F	Pow	1.3		
Source		Manufacturer		

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.



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SECTION 14: Transport information

14.1 Transport ADR/RID/ADN The product is not subject to ADR/RID/ADN regulations.

14.2 Transport IMDG The product is not subject to IMDG regulations.

- **14.3 Transport ICAO-TI / IATA** The product is not subject to ICAO-TI / IATA regulations.
- **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 <u>EU regulations</u>

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	

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances This product is not subject to Part 1 or 2 of Annex I.

15.2 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.



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

H221	Flammable gas.
H280	Contains gas under pressure; may explode if heated.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H400	Very toxic to aquatic life.

Notes relating to the identification, classification and labelling of substances and mixtures ((EC) No 1272/2008, Annex VI)

When put on the market gases have to be classified as 'Gases under pressure', in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case.

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.

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