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

#### 1.1 Product identifier

**Trade name** 

# edding Flipchart Marker Ink (black, green) contained in: edding 31, edding 32

# 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)

Skin Sens. 1; H317 STOT RE 2; H373

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

R43

#### 2.2 Label elements

#### <u>Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)</u>

#### Hazard pictograms



GHS07



CHCUS

#### Signal word

Warning

#### Hazardous component(s) to be indicated on label:

diethylene glycol

Trisodium 5-hydroxy-1-(4-sulphophenyl)-4-(4-sulphophenylazo)pyrazole-3-carboxylate

**Hazard statements** 

H317 May cause an allergic skin reaction.

H373 May cause damage to organs through prolonged or repeated exposure

Hazard statements (EU)

EUH208 Contains 5-Chlor-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydro

isothiazol-3-one (3:1). May produce an allergic 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.

P260 Do not breathe vapour.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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			Additio	nal information		
	CAS / EC / Index /	Classification	Classification (EC)	Concer	ntration		%
	REACH no	67/548/EEC	1272/2008 (CLP)				
1	diethylene glycol						
	111-46-6	Xn; R22	Acute Tox. 4; H302	>	10.00 - <	30.00	%-b.w.
	203-872-2		STOT RE 2; H3730				
	603-140-00-6						
	01-2119457857-21						
2		ky-1-(4-sulphophenyl)-4-(	4-				
		yrazole-3-carboxylate					
	1934-21-0	R43	Skin Sens. 1; H317	>	1.00 - <	5.00	%-b.w.
	217-699-5						
	-						
	-						
3	bronopol						
	52-51-7	Xn; R21/22	Acute Tox. 4*; H302	<	0.50		%-b.w.
	200-143-0	Xi; R37/38	Acute Tox. 4*; H312				
	603-085-00-8	Xi; R41	Aquatic Acute 1; H400				
	-	N; R50	Eye Dam. 1; H318				
			Skin Irrit. 2; H315				
			STOT SE 3; H335				
4		3-dihydroisothiazol-3-on	e and 2-Methyl-2,3-				
	dihydro isothiazol-3-one (3:1)						_
	55965-84-9	T; R23/24/25	Acute Tox. 3*; H301	<	0.06		%-b.w.
	-	C; R34	Acute Tox. 3*; H311				
	613-167-00-5	R43	Acute Tox. 3*; H331				
	-	N; R50/53	Aquatic Acute 1; H400				
			Aquatic Chronic 1; H410				
			Skin Corr. 1B; H314				
	Total for all Durburges		Skin Sens. 1; H317				

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

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

No	Note	Specific concentration limits	M-factor	M-factor
			(acute)	(chronic)
3	-	-	M = 10	-
4	-	Skin Sens. 1; H317: C >= 0.0015%	-	-
		Eye Irrit. 2; H319: C >= 0.06%		
		Skin Irrit. 2; H315: C >= 0.06%		
		Skin Corr. 1B; H314: C >= 0.6%		



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No	Route, target organ, concrete effect
1	H373
	oral; kidney; -

#### 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

Ensure supply of fresh air.

#### After skin contact

Wash off immediately with soap and water.

#### 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.

#### 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

Foam; Carbon dioxide; Extinguishing powder; 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 monoxide (CO); Carbon dioxide (CO2)

# 5.3 Advice for firefighters

Use self-contained breathing apparatus. 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.

#### 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). When picked up, treat material as prescribed under heading "Disposal considerations".



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#### 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. Wash hands before breaks and after work.

#### Advice on protection against fire and explosion

No special measures necessary.

#### 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.

#### Requirements for storage rooms and vessels

Store product in closed containers.

#### Advice on storage assembly

Do not store together with: Oxidizing agents; Acids

#### 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	diethylene glycol	111-46-6		203-872-2	
	List of approved workplace exposure limits (WELs) /	EH40			
	2,2'-Oxydiethanol				
	TWA	101	mg/m³	23	ml/m³

# **DNEL and PNEC values**

#### **DNEL values (worker)**

	Divide (Welker)					
No	Substance name			CAS / EC no		
	Route of exposure			Value		
1	diethylene glycol			111-46-6		
				203-872-2		
	dermal	Long term (chronic)	systemic	106	mg/kg/day	
	inhalative	Long term (chronic)	local	60	mg/m³	

#### **DNEL** value (consumer)

No	Substance name	CAS / EC no			
	Route of exposure	Exposure time	Effect	Value	
1	diethylene glycol			111-46-6	
				203-872-2	
	dermal	Long term (chronic)	systemic	53	mg/kg/day
	inhalative	Long term (chronic)	local	12	mg/m³



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#### **PNEC** values

No	Substance name			
	ecological compartment	Туре	Value	
1	diethylene glycol		111-46-6	
			203-872-2	
	water	fresh water	10	mg/l
	water	marine water	1	mg/l
	water	fresh water sediment	20.9	mg/kg dry weight
	water	marine water sediment	2.09	mg/kg dry weight
	water	Aqua intermittent	10	mg/l
	soil	•	1.53	mg/kg dry weight
	sewage treatment plant	-	199.5	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 (EN 166)

# Hand protection

In case of intensive contact, wear protective gloves (EN 374). 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	
black	

Odour	
odourless	

# EC safety data sheet

diethylene glycol

log Pow

Source



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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 rai	nge		
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			
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	Τ		
Remarks	miscible		
Solubility(ies)			
No data available			
Partition coefficient: n-octanol/water			
No Substance name		CAS no.	EC no.

< Manufacturer 111-46-6

203-872-2



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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

No data available.

# 10.3 Possibility of hazardous reactions

No data available.

#### 10.4 Conditions to avoid

No data available.

#### 10.5 Incompatible materials

Oxidizing agents; Acids

#### 10.6 Hazardous decomposition products

No hazardous decomposition products known.

# **SECTION 11: Toxicological information**

# 11.1 Information on toxicological effects

Acu	te oral toxicity (result of the ATE calculation for the mixture)					
No	Product Name					
1	edding Flipchart Marker Ink (black, greer	n) contained				
	in: edding 31, edding 32					
Rem	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 oral > 2000 mg/kg).				

# Acute oral toxicity No data available

Acu	Acute dermal toxicity					
No	Substance name	CAS	S no.	EC no.		
1	diethylene glycol	111	-46-6	203-872-2		
LD5	0		13300	mg/kg bodyweight		
Species		rabbit				
		ECHA				

Acu	Acute inhalational toxicity					
No	Substance name	CA	S no.	EC no.		
1	diethylene glycol	111	-46-6	203-872-2		
LC5	0	>	4.6	mg/l		
Dura	ation of exposure		4	h		
•		Dust/mist				
1		rat				
Source		ECHA				
Eval	uation/classification	Based on available	e data, the classification	on criteria are not met.		



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Skin	Skin corrosion/irritation					
No	Substance name	CAS no.	EC no.			
1	diethylene glycol	111-46-6	203-872-2			
Spec	cies	rabbit				
Source		ECHA				
Eval	uation	non-irritant				

Seri	Serious eye damage/irritation				
No	Substance name	CAS no.	EC no.		
1	diethylene glycol	111-46-6	203-872-2		
Spec	cies	rabbit			
Source		ECHA			
Eval	uation	non-irritant			

Res	Respiratory or skin sensitisation					
No	Substance name	CAS no.	EC no.			
1	diethylene glycol	111-46-6	203-872-2			
Rou	te of exposure	Skin				
Spe	cies	guinea pig				
Meth	nod	67/548/EEC, B.6				
Source		ECHA				
Eval	uation	non-sensitizing				

Geri	Germ cell mutagenicity					
No	Substance name	CAS no.	EC no.			
1	diethylene glycol	111-46-6	203-872-2			
Source		ECHA				
Evaluation/classification		Based on available data, the classification	n criteria are not met.			

Rep	Reproduction toxicity					
No	Substance name	CAS no.	EC no.			
1	diethylene glycol	111-46-6	203-872-2			
Source		ECHA				
Evaluation/classification		Based on available data, the classification	n criteria are not met.			

Carcinogenicity					
No	Substance name	CAS no.	EC no.		
1	diethylene glycol	111-46-6	203-872-2		
Source		ECHA			
Eva	luation/classification	Based on available data, the class	ification criteria are not met.		

# STOT-single exposure No data available

STC	STOT-repeated exposure					
No	Substance name	CAS no.		EC no.		
1	diethylene glycol	111-46-6		203-872-2		
Rou	te of exposure	oral				
NOA	\EL		100	mg/kg bw/d		
Spe	cies	rat				
Targ	jet organ	kidney				
Sou	rce	ECHA				
Effe	cts	Causes damage to organs.				

Aspiration hazard	
No data available	

# Delayed and immediate effects as well as chronic effects from short and long-term exposure Repeated and prolonged skin contact may cause removal of natural fat from the skin and irritation of the skin. Eye contact with the product may lead to irritation.



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# SECTION 12: Ecological information

# 12.1 Toxicity

Tox	Toxicity to fish (acute)					
No	Substance name	CAS no.		EC no.		
1	diethylene glycol	111-46-6		203-872-2		
LC5	0		75200	mg/l		
Dura	ation of exposure		96	h		
Species		Pimephales promelas				
Sou	rce	ECHA				

# Toxicity to fish (chronic)

No data available

Tox	Toxicity to Daphnia (acute)				
No	Substance name	CAS r	10.	EC no.	
1	diethylene glycol	111-4	6-6	203-872-2	
EC5	0	>	10000	mg/l	
Dura	ation of exposure		48	h	
Species		Daphnia magna			
Method		DIN 38412			
Source		Manufacturer			

# **Toxicity to Daphnia (chronic)**

No data available

# Toxicity to algae (acute)

No data available

Toxi	Toxicity to algae (chronic)				
No	Substance name	CAS no.		EC no.	
1	diethylene glycol	111-46-6		203-872-2	
NOE	EC .		2700	mg/l	
Dura	ation of exposure		8	day(s)	
Species		Scenedesmus quadricauda			
Source		ECHA			

Bac	Bacteria toxicity					
No	Substance name	CAS	no.	EC no.		
1	diethylene glycol	111-	46-6	203-872-2		
EC2	0	>	1.995	mg/l		
Dura	ation of exposure		0.5	h		
Species		activated sludge				
Method		ISO 8192	ISO 8192			
Source		ECHA				

12.2 Persistence and degradability

Biod	Biodegradability				
No	Substance name	CAS no.		EC no.	
1	diethylene glycol	111-46-6		203-872-2	
Туре	e	DOC decrease			
Valu	ie	90	- 100	%	
Dura	ation		28	day(s)	
Meth	nod	OECD 301 B			
Source		ECHA			
Evaluation		readily biodegradable			



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#### 12.3 Bioaccumulative potential

Biod	Bioconcentration factor (BCF)				
No	Substance name	CAS no.	EC no.		
1	diethylene glycol	111-46-6	203-872-2		
BCF		100			
Species		Leuciscus idus			
Source		ECHA			

Part	Partition coefficient: n-octanol/water				
No	Substance name	CAS no.		EC no.	
1	diethylene glycol	111-46-6		203-872-2	
log F	Pow	<	1		
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.

# **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 73/78 and the IBC Code

Not relevant



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# **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 No 3 XVII.

#### Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances

Remarks Annex I, part 1 + 2: not mentioned. With regard to possibly appropriate

decomposition products see Chapter 10.

#### 15.2 Chemical safety assessment

No data available.

# **SECTION 16: Other information**

#### Sources of key data used to compile the data sheet:

EC Directive 67/548/EC resp. 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.

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

R21/22 Harmful in contact with skin and if swallowed.

R22 Harmful if swallowed.

R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

R34 Causes burns.

R37/38 Irritating to respiratory system and skin.
R41 Risk of serious damage to eyes.

R43 May cause sensitisation by skin contact.

R50 Very toxic to aquatic organisms.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic

environment.

H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H331 Toxic if inhaled.

H335 May cause respiratory irritation.

H373o May cause damage to organs through prolonged or repeated exposure if swallowed.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

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#### 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.