

according to Regulation (EC) No 1907/2006

VA-DOT 5.1

Print date: 01.09.2017

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

1.1. Product identifier

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

1.3. VAICO No V60-0321, V60-0322, V60-0323, V60-0324

1.4. Details of the supplier of the safety data sheet

Company name:	VIEROL AG	
Street:	Karlstrasse 19	
Place:	26123 Oldenburg, Germany	
Telephone:	+49 (0) 441 – 210 20 - 0	Telefax: +49 (0) 441 – 210 20 - 111
Internet:	www.vierol.de	

1.5. Emergency telephone number: Gifftinformationszentrum Nord (Göttingen)
+49 (0)551/19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:
Serious eye damage/eye irritation: Eye Irrit. 2
Hazard Statements:
Causes serious eye irritation.

2.2. Label elements

Regulation (EC) No. 1272/2008

Signal word: Warning

Pictograms:



Hazard statements

H319 Causes serious eye irritation.

Precautionary statements

P264 Wash hands thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
143-22-6	2-[2-(2-butoxyethoxy)ethoxy]ethanol, TEGBE, butoxytriethylene glycol, triethylene glycol monobutyl ether			>10-<30 %
	205-592-6	603-183-00-0		
	Eye Dam. 1; H318			
112-34-5	2-(2-butoxyethoxy)ethanol, diethylene glycol monobutyl ether			>1-<3 %
	203-961-6	603-096-00-8		
	Eye Irrit. 2; H319			
110-97-4	1,1'-iminodipropan-2-ol, di-isopropanolamine			>1-<3 %
	203-820-9	603-083-00-7		
	Eye Irrit. 2; H319			
1559-34-8	3,6,9,12-tetraoxahexadecan-1-ol			>1-<3 %
	216-322-1			
	Eye Irrit. 2; H319			
111-77-3	2-(2-methoxyethoxy)ethanol, diethylene glycol monomethyl ether			>0,1-<1,0 %
	203-906-6	603-107-00-6		
	Repr. 2; H361d ***			

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove affected person from the danger area and lay down.

After inhalation

Remove casualty to fresh air and keep warm and at rest.

After contact with skin

Take off contaminated clothing. IF ON SKIN: Wash with plenty of soap and water.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person or a person with cramps. Immediately call a doctor.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings. alcohol resistant foam. Carbon dioxide (CO₂).
Extinguishing powder Water mist

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Unsuitable extinguishing media

Water spray jet

5.2. Special hazards arising from the substance or mixture

Non-flammable.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.
Do not allow entering drains or surface water.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

No special measures are necessary. Avoid formation of oil dust.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed. Keep only in the original container in a cool, well-ventilated place.

Advice on storage compatibility

No special measures are necessary.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure limits(EH40)**

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
112-34-5	2-(2-Butoxyethoxy)ethanol	10	67.5		TWA (8 h)	WEL
		15	101.2		STEL (15 min)	WEL
111-77-3	2-(2-Methoxyethoxy)ethanol	10	50.1		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

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DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
111-77-3	2-(2-methoxyethoxy)ethanol, diethylene glycol monomethyl ether			
Worker DNEL, long-term		dermal	systemic	0,53 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	50,1 mg/m ³
Consumer DNEL, long-term		dermal	systemic	0,27 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	25 mg/m ³
Consumer DNEL, long-term		oral	systemic	1,5 mg/kg bw/day

8.2. Exposure controls**Appropriate engineering controls**

Provide adequate ventilation as well as local exhaustion at critical locations.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Eye/face protection

Suitable eye protection: goggles.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state: liquid
 Colour: yellow
 Odour: characteristic

Test method

pH-Value: 7-11,5

Changes in the physical state

Melting point: -50 °C

Initial boiling point and boiling range: 260 °C

Flash point: > 120 °C DIN EN ISO 2719

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Flammability

Solid: not applicable
 Gas: not applicable

Lower explosion limits: not determined
 Upper explosion limits: not determined

Auto-ignition temperature

Solid: not applicable
 Gas: not applicable

Decomposition temperature: not determined

Oxidizing properties

Not oxidizing.

Vapour pressure: <200 hPa

Density (at 20 °C): 1,03 g/cm³ DIN 51757

Water solubility: miscible

Solubility in other solvents

Miscible with: Ethanol

Partition coefficient: <2,0

Vapour density: not determined

Evaporation rate: not determined

9.2. Other information

Solid content: not determined

SECTION 10: Stability and reactivity**10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

none

10.5. Incompatible materials

No information available. Oxidising agent, strong

10.6. Hazardous decomposition products

No known hazardous decomposition products. Nitrogen oxides (NO_x) Carbon dioxide (CO₂)

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity**

Based on available data, the classification criteria are not met.

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CAS No	Chemical name			
	Exposure route	Dose	Species	Source
112-34-5	2-(2-butoxyethoxy)ethanol, diethylene glycol monobutyl ether			
	oral	LD50 5660 mg/kg	Rat	
	dermal	LD50 4120 mg/kg	Rabbit	
110-97-4	1,1'-iminodipropan-2-ol, di-isopropanolamine			
	oral	LD50 4765 mg/kg	Rat	
111-77-3	2-(2-methoxyethoxy)ethanol, diethylene glycol monomethyl ether			
	oral	LD50 ca. 6500 mg/kg	Rat	
	dermal	LD50 ca. 6450 mg/kg	Rabbit	
	inhalative (1 h) vapour	LC50 > 200 mg/l	Rat	

Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Additional information on tests

This mixture is classified as hazardous according to regulation (EC) No. 1272/2008 [CLP].

SECTION 12: Ecological information

12.1. Toxicity

The product is not: Ecotoxic.

CAS No	Chemical name				
	Aquatic toxicity	Dose	[h] [d]	Species	Source
112-34-5	2-(2-butoxyethoxy)ethanol, diethylene glycol monobutyl ether				
	Acute algae toxicity	ErC50 > 100 mg/l		Scenedesmus sp.	
	Acute crustacea toxicity	EC50 > 100 mg/l	48 h	Daphnia magna	
110-97-4	1,1'-iminodipropan-2-ol, di-isopropanolamine				
	Acute fish toxicity	LC50 > 1000-2200 mg/l	96 h	Leuciscus idus	
111-77-3	2-(2-methoxyethoxy)ethanol, diethylene glycol monomethyl ether				
	Acute fish toxicity	LC50 7500 mg/l	96 h	Lepomis macrochirus	
	Acute algae toxicity	ErC50 > 500 mg/l	72 h	Desmodesmus subspicatus	
	Acute crustacea toxicity	EC50 > 500 mg/l	48 h	Daphnia magna	

12.2. Persistence and degradability

Biodegradable.

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12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
112-34-5	2-(2-butoxyethoxy)ethanol, diethylene glycol monobutyl ether	0,56 (25°C)
110-97-4	1,1'-iminodipropan-2-ol, di-isopropanolamine	-0,82
111-77-3	2-(2-methoxyethoxy)ethanol, diethylene glycol monomethyl ether	-0,68

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Advice on disposal**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)****14.1. UN number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)**14.1. UN number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

Marine transport (IMDG)**14.1. UN number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

Air transport (ICAO)**14.1. UN number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

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14.4. Packing group: No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No dangerous good in sense of this transport regulation.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

2010/75/EU (VOC): 0,99 % (10,197 g/l)

2004/42/EC (VOC): 6,97 % (71,791 g/l)

Additional information

To follow: 850/2004/EC, 1107/2009/EC, 649/2012/EC.

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Water contaminating class (D): 2 - water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Relevant H and EUH statements (number and full text)

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H361d Suspected of damaging the unborn child.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)