

according to Regulation (EC) No 1907/2006

Bohle Professional Glass cleaner, aerosol

Revision date: 21.06.2018

Product code: BO5107900

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Bohle Professional Glass cleaner, aerosol

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

Glass and window cleaner, containing solvents

1.3. Details of the supplier of the safety data sheet

Company name:	BOHLE AG	
Street:	Dieselstr. 10	
Place:	D-42781 Haan	
Telephone:	+49 2129 5568-0	Telefax: +49 2129 5568-282
e-mail:	info@bohle.de	
Contact person:	Klaus Nehren	Telephone: +49 2129 5568-276
e-mail:	MSDS@bohle.de	
Internet:	www.bohle-group.com	
Responsible Department:	Chemie	

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Aerosol: Aerosol 1

Hazard Statements:

Extremely flammable aerosol.

Pressurised container: May burst if heated.

2.2. Label elements**Regulation (EC) No. 1272/2008**

Signal word: Danger

Pictograms:

**Hazard statements**

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251	Do not pierce or burn, even after use.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P102	Keep out of reach of children.
P211	Do not spray on an open flame or other ignition source.
P501	Dispose of in accordance with local regulations.

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]			
111-76-2	2-butoxyethanol, butyl cellosolve, ethylene glycol monobutyl ether			<5%
	203-905-0	603-014-00-0		
	Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2; H332 H312 H302 H315 H319			
68476-85-7	Petroleum gases, liquefied; Petroleum gas			<5%
	270-704-2	649-202-00-6		
	Flam. Gas 1, Liquefied gas; H220 H280			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			<5%
	200-661-7	603-117-00-0	01-2119457558-25	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336			
7632-00-0	sodium nitrite			<1%
	231-555-9	007-010-00-4		
	Ox. Sol. 3, Acute Tox. 3, Eye Irrit. 2, Aquatic Acute 1; H272 H301 H319 H400			
246538-78-3	Hydrocarbons, C11-C13, isoalkanes, < 2% aromatics			<1%
	920-901-0		01-2119456810-40	
	Asp. Tox. 1; H304			

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

Labelling for contents according to Regulation (EC) No 648/2004

< 5 % aliphatic hydrocarbons, perfumes.

SECTION 4: First aid measures
4.1. Description of first aid measures
General information

Move to fresh air in case of accidental inhalation of vapours.

After inhalation

IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

Put victim at rest, cover with a blanket and keep warm. Call a physician immediately.

After contact with skin

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap.

After contact with eyes

In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

After ingestion

Immediately give large quantities of water to drink. Do not induce vomiting. Consult a physician if necessary.

SECTION 5: Firefighting measures
5.1. Extinguishing media
Suitable extinguishing media

 Foam, carbon dioxide (CO₂), Extinguishing powder, Water mist

Unsuitable extinguishing media

high volume water jet

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5.2. Special hazards arising from the substance or mixture

Extremely flammable
 Vapours are heavier than air, spread along floors and form explosive mixtures with air.
 Contains gas under pressure; may explode if heated.

5.3. Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary .
 Use water spray to cool unopened containers.
 Remove product from area of fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. In case of inadequate ventilation wear respiratory protection.
 Do not breathe gas/vapour/aerosol.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.
 Collect spillage. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

6.3. Methods and material for containment and cleaning up

Remove all sources of ignition. Provide adequate ventilation.
 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

6.4. Reference to other sections

Wear personal protection equipment (refer to section 8). Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

When using, do not eat, drink or smoke.

Advice on protection against fire and explosion

Do not smoke. Keep away from heat and sources of ignition. Keep product and empty container away from heat and sources of ignition.

Further information on handling

Keep away from direct sunlight. Also after use, do not open with force or burn.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep containers tightly closed in a dry, cool and well-ventilated place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
111-76-2	2-Butoxyethanol	25	123		TWA (8 h)	WEL
		50	246		STEL (15 min)	WEL
68476-85-7	Liquefied petroleum gas	1000	1750		TWA (8 h)	WEL
		1250	2180		STEL (15 min)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL

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Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
111-76-2	2-Butoxyethanol	butoxyacetic acid	240 mmol/mol	urine	Post shift

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			
Consumer DNEL, long-term		oral	systemic	26 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	319 mg/kg bw/day
Worker DNEL, long-term		dermal	systemic	888 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	89 mg/m ³
Worker DNEL, long-term		inhalation	systemic	500 mg/m ³

PNEC values

CAS No	Substance	Value
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	
Freshwater		140,9 mg/l
Freshwater (intermittent releases)		140,9 mg/l
Marine water		140,9 mg/l
Freshwater sediment		552 mg/kg
Marine sediment		552 mg/kg
Micro-organisms in sewage treatment plants (STP)		2251 mg/l
Soil		28 mg/kg

8.2. Exposure controls
Appropriate engineering controls

Provide adequate ventilation.
 Do not breathe gas/vapour/aerosol.
 Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust) .

Protective and hygiene measures

Keep away from sources of ignition - No smoking.
 Wash hands before breaks and at the end of workday . Keep away from food, drink and animal feeding stuffs.

Eye/face protection

safety glasses with side-shields conforming to EN166

Hand protection

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.
 Take note of the information given by the producer concerning permeability and break through times , and of special workplace conditions (mechanical strain, duration of contact).

Skin protection

Wear suitable protective equipment.
 Wash hands before breaks and after work.
 Do not eat, drink or smoke when using this product.

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Apply skin care products after work.

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:	aerosol
Colour:	clear
Odour:	characteristic

Changes in the physical state

Initial boiling point and boiling range:	-40 - -2 °C
Flash point:	<-40 °C
Lower explosion limits:	1,8 vol. %
Upper explosion limits:	9,5 vol. %

Auto-ignition temperature

Gas:	410 - 580 °C
Vapour pressure: (at 45 °C)	5900 - 17600 hPa
Density (at 23 °C):	0,95 g/cm ³
Vapour density: (at 15 °C)	1,5
Solvent content:	max. 58 g/l

9.2. Other information**SECTION 10: Stability and reactivity****10.1. Reactivity**

Stable under normal conditions.

10.2. Chemical stability

The substance is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No decomposition if stored and applied as directed.

10.4. Conditions to avoid

Protect from frost, heat and sunlight.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

oxidizing agents

10.6. Hazardous decomposition products

Carbon monoxide

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

Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Headaches and dizziness may occur, proceeding to fainting or unconsciousness; large doses may result in coma and death.

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CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
111-76-2	2-butoxyethanol, butyl cellosolve, ethylene glycol monobutyl ether					
	oral	LD50 mg/kg	1480	Rat		
	dermal	LD50 mg/kg	2000	Rabbit		
	inhalative vapour	ATE	11 mg/l			
	inhalative aerosol	ATE	1,5 mg/l			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol					
	oral	LD50 mg/kg	4570	Rat		
	dermal	LD50 mg/kg	13400	Rabbit		
	inhalative (4 h) vapour	LC50	30 mg/l	Rat		
7632-00-0	sodium nitrite					
	oral	LD50 mg/kg	180	Rat	GESTIS	

Irritation and corrosivity

Repeated exposure may cause skin dryness or cracking.
Contact with eyes may cause irritation.

SECTION 12: Ecological information

12.1. Toxicity

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
111-76-2	2-butoxyethanol, butyl cellosolve, ethylene glycol monobutyl ether					
	Acute fish toxicity	LC50 mg/l	1490	96 h	Lepomis macrochirus	
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol					
	Acute fish toxicity	LC50 mg/l	9640	96 h	Pimephales promelas (fathead minnow)	
	Acute algae toxicity	ErC50 mg/l	>2000	72 h	Desmodesmus subspicatus	
7632-00-0	sodium nitrite					
	Acute fish toxicity	LC50 mg/l	0,56 - 1,78	96 h	Onchorhynchus mykiss	
	Acute crustacea toxicity	EC50 mg/l	12,5 - 100	48 h	Daphnia magna	

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
111-76-2	2-butoxyethanol, butyl cellosolve, ethylene glycol monobutyl ether	0,81 (25°C)
68476-85-7	Petroleum gases, liquefied; Petroleum gas	1,09-2,8
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	-0,16
7632-00-0	sodium nitrite	-3,7

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Further information

Water hazard class (WGK) 2: water endangering
Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.

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

In accordance with local and national regulations.

Waste disposal number of waste from residues/unused products

160505 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and
discarded chemicals; gases in pressure containers other than those mentioned in 16 05 04

SECTION 14: Transport information**Land transport (ADR/RID)**

14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2
14.4. Packing group: -
Hazard label: 2.1



Classification code: 5F
Special Provisions: 190 327 344 625
Limited quantity: 1 L
Excepted quantity: E0
Transport category: 2
Tunnel restriction code: D

Inland waterways transport (ADN)

14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2
14.4. Packing group: -
Hazard label: 2.1



Classification code: 5F
Special Provisions: 190 327 344 625
Limited quantity: 1 L
Excepted quantity: E0

Marine transport (IMDG)

14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2.1
14.4. Packing group: -

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Hazard label: 2.1



Special Provisions: 63, 190, 277, 327, 344, 959
 Limited quantity: 1000 mL
 Excepted quantity: E0
 EmS: F-D, S-U

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS, flammable
14.3. Transport hazard class(es): 2.1
14.4. Packing group: -
 Hazard label: 2.1



Special Provisions: A145 A167 A802
 Limited quantity Passenger: 30 kg G
 Passenger LQ: Y203
 Excepted quantity: E0
 IATA-packing instructions - Passenger: 203
 IATA-max. quantity - Passenger: 75 kg
 IATA-packing instructions - Cargo: 203
 IATA-max. quantity - Cargo: 150 kg

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

SECTION 15: Regulatory information

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

EU regulatory information

2004/42/EC (VOC): 6,1 % (58 g/l)
 Subcategory according to Directive 2004/42/EC: Preparatory and cleaning - Preparatory, VOC limit value: 850 g/l

National regulatory information

Water contaminating class (D): 2 - clearly water contaminating

SECTION 16: Other information

Relevant H and EUH statements (number and full text)

- H220 Extremely flammable gas.
- H222 Extremely flammable aerosol.
- H225 Highly flammable liquid and vapour.
- H229 Pressurised container: May burst if heated.
- H272 May intensify fire; oxidiser.
- H280 Contains gas under pressure; may explode if heated.
- H301 Toxic if swallowed.
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.

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H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.

Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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