

according to Regulation (EC) No 1907/2006

BriteGuard Surface FINISHER

Revision date: 27.06.2017

Product code: BO5845000

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

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Further trade names

BO 5841000, 1000 ml

BO 5845000, 5000 ml

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

Cleaning agent

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	

1.4. Emergency telephone number: Emergency CONTACT (24-Hour-Number):GBK GmbH +49 (0)6132-84463

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

Hazard categories:

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Corr. 1B

Serious eye damage/eye irritation: Eye Dam. 1

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

Harmful if inhaled.

Causes severe skin burns and eye damage.

Causes serious eye damage.

Harmful to aquatic life with long lasting effects.

2.2. Label elements**Regulation (EC) No. 1272/2008****Hazard components for labelling**

2-aminoethanol, ethanolamine

Signal word: Danger**Pictograms:****Hazard statements**

H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H412	Harmful to aquatic life with long lasting effects.

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Precautionary statements

P260	Do not breathe vapour/aerosol.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P312	Call a POISON CENTER/doctor if you feel unwell.

SECTION 3: Composition/information on ingredients
3.2. Mixtures
Hazardous components

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
141-43-5	2-aminoethanol, ethanolamine	25-50 %
	205-483-3	603-030-00-8
	Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Aquatic Chronic 3; H302 H312 H332 H314 H412	
111-76-2	2-butoxyethanol, butyl cellosolve, ethylene glycol monobutyl ether	<25 %
	203-905-0	603-014-00-0
	01-2119475108-36	
	Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2; H302 H312 H332 H315 H319	

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

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

< 5 % phosphonates.

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

Take off immediately all contaminated clothing.
Remove affected person from the danger area and lay down.

After inhalation

Provide fresh air.
If unconscious place in recovery position and seek medical advice.
If symptoms persist, call a physician.

After contact with skin

Wash with plenty of water.
If skin irritation persists, call a physician.

After contact with eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing. If symptoms persist, call a physician.

After ingestion

Rinse mouth. Let water be drunk in little sips (dilution effect).
Do NOT induce vomiting. Call a doctor.
Do not allow a neutralisation agent to be drunk.

SECTION 5: Firefighting measures

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5.1. Extinguishing media**Suitable extinguishing media**Carbon dioxide (CO₂), Extinguishing powder, Water spray jet, alcohol resistant foam**Unsuitable extinguishing media**

High power water jet

5.2. Special hazards arising from the substance or mixtureIn case of fire may be liberated: Carbon monoxide, Carbon dioxide
Nitrogen oxides (NO_x)**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus. In case of fire and/or explosion do not breathe fumes.

Additional information

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

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

Provide adequate ventilation. Wear personal protective equipment.

6.2. Environmental precautions

Do not empty into 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

SECTION 7: Handling and storage

SECTION 8: Exposure controls/personal protection

SECTION 13: Disposal considerations

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**Provide sufficient air exchange and/or exhaust in work rooms.
Provide eye shower and label its location conspicuously**Advice on protection against fire and explosion**

Usual measures for fire prevention.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**Keep only in the original container in a cool, well-ventilated place.
Protect against direct sunlight.
Always close containers tightly after the removal of product.**Advice on storage compatibility**

Keep away from food, drink and animal feedingstuffs.

Further information on storage conditions

storage temperature: -5°C - 40°C

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

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Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
141-43-5	2-Aminoethanol	1	2.5		TWA (8 h)	WEL
		3	7.6		STEL (15 min)	WEL
111-76-2	2-Butoxyethanol	25	123		TWA (8 h)	WEL
		50	246		STEL (15 min)	WEL

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

8.2. Exposure controls

Appropriate engineering controls

Even in case of a full release, due to the small amount of substances present, it is not expected that exposure limits will be reached. However it is the duty of the user to verify this and follow given exposure limits at the workplace.

Protective and hygiene measures

Provide adequate ventilation. Do not breathe vapour/aerosol.
 Avoid contact with skin, eyes and clothing. Take off all contaminated clothing immediately.
 Keep away from food, drink and animal feedingstuffs. When using do not eat or drink.
 Do not smoke. Wash hands before breaks and at the end of workday.

Eye/face protection

safety glasses with side-shields conforming to EN166

Hand protection

The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.
 Recommended material: Butyl caoutchouc (butyl rubber), FKM (fluoro rubber), NBR (Nitrile rubber), CR (polychloroprene, chloroprene rubber)
 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

impervious clothing DIN EN 13034
 Chemical resistant safety shoes

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Combination filtering device (EN 14387)
 Recommended Filter type: A-P2

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid
 Colour: green
 Odour: sweet

Test method

pH-Value (at 20 °C): 11,8

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Changes in the physical state

Initial boiling point and boiling range: 100 °C
Flash point: >70 °C

Explosive properties

Not explosive

Ignition temperature: 240 °C

Auto-ignition temperature

not auto-flammable

Vapour pressure: 23 hPa
(at 20 °C)Density (at 20 °C): 1,02 g/cm³

Water solubility: completely miscible

Solvent content: > 45%

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

None under normal processing.

10.2. Chemical stability

No decomposition if used as directed.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

None known.

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

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Acute toxicity

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
141-43-5	2-aminoethanol, ethanolamine					
	oral	LD50 mg/kg	2050	Rat		
	dermal	LD50 mg/kg	1000	Rabbit		
	inhalative vapour	ATE	11 mg/l			
	inhalative aerosol	ATE	1,5 mg/l			
111-76-2	2-butoxyethanol, butyl cellosolve, ethylene glycol monobutyl ether					
	oral	LD50 mg/kg	1480	Rat		
	dermal	LD50 mg/kg	2000	Rabbit		
	inhalative (4 h) vapour	LC50	>3,1 mg/l	Rat		
	inhalative aerosol	ATE	1,5 mg/l			

SECTION 12: Ecological information
12.1. Toxicity

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
141-43-5	2-aminoethanol, ethanolamine					
	Acute fish toxicity	LC50	329 mg/l	96 h	Lepomis macrochirus (Bluegill)	
	Acute algae toxicity	ErC50	15 mg/l	72 h	Desmodesmus subspicatus	
	Acute crustacea toxicity	EC50	65 mg/l	48 h	Daphnia magna	
111-76-2	2-butoxyethanol, butyl cellosolve, ethylene glycol monobutyl ether					
	Acute fish toxicity	LC50 mg/l	1490	96 h	Lepomis macrochirus	

12.3. Bioaccumulative potential
Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
141-43-5	2-aminoethanol, ethanolamine	-1,91 (25°C)
111-76-2	2-butoxyethanol, butyl cellosolve, ethylene glycol monobutyl ether	0,81 (25°C)

12.6. Other adverse effects

slightly hazardous to water (WGK 1)

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

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160305 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes containing hazardous substances
Classified as hazardous waste.

Waste disposal number of used product

160305 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes containing hazardous substances
Classified as hazardous waste.


Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances
Classified as hazardous waste.

SECTION 14: Transport information

Land transport (ADR/RID)


14.1. UN number: UN 1719
14.2. UN proper shipping name: CAUSTIC ALKALI LIQUID, N.O.S. 2-aminoethanol, ethanolamine
14.3. Transport hazard class(es): 8
14.4. Packing group: II
 Hazard label: 8



Classification code: C5
 Special Provisions: 274
 Limited quantity: 1 L
 Excepted quantity: E2
 Transport category: 2
 Hazard No: 80
 Tunnel restriction code: E

Inland waterways transport (ADN)

14.1. UN number: UN 1719
14.2. UN proper shipping name: CAUSTIC ALKALI LIQUID, N.O.S. 2-aminoethanol, ethanolamine
14.3. Transport hazard class(es): 8
14.4. Packing group: II
 Hazard label: 8



Classification code: C5
 Special Provisions: 274
 Limited quantity: 1 L
 Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number: UN 1719
14.2. UN proper shipping name: CAUSTIC ALKALI LIQUID, N.O.S. 2-aminoethanol, ethanolamine
14.3. Transport hazard class(es): 8

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14.4. Packing group:

II

Hazard label:

8



Special Provisions:

274

Limited quantity:

1 L

Excepted quantity:

E2

EmS:

F-A, S-B

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number:

UN 1719

14.2. UN proper shipping name:

CAUSTIC ALKALI LIQUID, N.O.S. 2-aminoethanol, ethanolamine

14.3. Transport hazard class(es):

8

14.4. Packing group:

II

Hazard label:

8



Special Provisions:

A3 A803

Limited quantity Passenger:

0.5 L

Passenger LQ:

Y840

Excepted quantity:

E2

IATA-packing instructions - Passenger:

851

IATA-max. quantity - Passenger:

1 L

IATA-packing instructions - Cargo:

855

IATA-max. quantity - Cargo:

30 L

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3: 2-aminoethanol, ethanolamine; 2-butoxyethanol, butyl cellosolve, ethylene glycol monobutyl ether

National regulatory information

Employment restrictions:

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water contaminating class (D):

1 - slightly water contaminating

15.2. Chemical safety assessment

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

SECTION 16: Other information

Relevant H and EUH statements (number and full text)

- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.

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H332	Harmful if inhaled.
H412	Harmful to aquatic life with long lasting effects.

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