

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**

BriteGuard Surface FINISHER

**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 (CO<sub>2</sub>), Extinguishing powder, Water spray jet, alcohol resistant foam**Unsuitable extinguishing media**

High power water jet

**5.2. Special hazards arising from the substance or mixture**In case of fire may be liberated: Carbon monoxide, Carbon dioxide  
Nitrogen oxides (NO<sub>x</sub>)**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 <sup>3</sup> | 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: &gt;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/cm<sup>3</sup>

Water solubility: completely miscible

Solvent content: &gt; 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 2050 mg/kg | Rat     |        |        |
|          | dermal   | LD50 1000 mg/kg | 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 1480 mg/kg | Rat     |        |        |
|          | dermal   | LD50 2000 mg/kg | 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 |
| 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 1490 mg/l | 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:

Hazard label:

II

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.)*