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

1.1. Product identifier
BriteGuard Surface SEALER

Further trade names
- BO 5810500, 500 ml
- BO 5815000, 5 l

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture:
- Solvent-borne coatings

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
Fax: +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:
- Flammable liquid: Flam. Liq. 2
- Serious eye damage/eye irritation: Eye Irrit. 2
- Specific target organ toxicity - single exposure: STOT SE 3

Hazard Statements:
- Highly flammable liquid and vapour.
- Causes serious eye irritation.
- May cause drowsiness or dizziness.

2.2. Label elements
Regulation (EC) No. 1272/2008
Hazard components for labelling
- propan-2-ol; isopropyl alcohol; isopropanol

Signal word: Danger

Pictograms:

Hazard statements
- H225: Highly flammable liquid and vapour.
- H319: Causes serious eye irritation.
- H336: May cause drowsiness or dizziness.

Precautionary statements
- P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No
Additional advice on labelling

The product is classified and labelled in accordance with EC directives or respective national laws.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Solvent-borne coatings

Hazardous components

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Quantity</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0</td>
<td>propan-2-ol; isopropyl alcohol; isopropanol</td>
<td>&gt;98 %</td>
<td>Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336</td>
</tr>
</tbody>
</table>

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Take off immediately all contaminated clothing.

After inhalation

Move to fresh air. Consult a physician after significant exposure. If victim is unconscious but breathing: Victim to lie down in the recovery position, cover and keep him warm. Call a physician immediately.

After contact with skin

Wash off immediately with soap and 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 eye irritation persists, consult a specialist.

After ingestion

Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Give sodium sulfate as laxative (1 tablespoon in 1 glass of water) with plenty of activated coal.

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

No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

water spray, alcohol-resistant foam, dry chemical, carbon dioxide (CO2)
Unsuitable extinguishing media
high volume water jet

5.2. Special hazards arising from the substance or mixture
In use may form flammable/explosive vapour-air mixture.
Fire may cause evolution of: Carbon monoxide, Carbon dioxide

5.3. Advice for firefighters
In the event of fire, wear self-contained breathing apparatus. Standard procedure for chemical fires.

Additional information
Use water spray to cool unopened containers.
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
Use personal protective equipment. Keep people away from and upwind of spill/leak.
Ensure adequate ventilation.
Keep away from heat and sources of ignition.
Avoid contact with skin and eyes. Do not breathe vapour.

6.2. Environmental precautions
Do not flush into surface water or sanitary sewer system.
Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches.
Local authorities should be advised if significant spillages cannot be contained.

6.3. Methods and material for containment and cleaning up
Provide adequate ventilation. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect in closed and suitable containers for 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
Provide adequate ventilation as well as local exhaustion at critical locations.
Provide room air exhaust at ground level.
Avoid formation of aerosol. Do not breathe vapour/aerosol.
Avoid contact with the skin and the eyes.

Advice on protection against fire and explosion
Take precautionary measures against static discharges. Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Keep away from heat and sources of ignition. Do not smoke.

7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels
Keep containers tightly closed in a cool, well-ventilated place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
Exposure limits (EH40)

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>ppm</th>
<th>mg/m³</th>
<th>fibres/ml</th>
<th>Category</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0</td>
<td>Propan-2-ol</td>
<td>400</td>
<td>999</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>500</td>
<td>1250</td>
<td></td>
<td>STEL (15 min)</td>
<td>WEL</td>
</tr>
</tbody>
</table>

DNEL/DMEL values

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>DNEL type</th>
<th>Exposure route</th>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0</td>
<td>propan-2-ol; isopropyl alcohol; isopropanol</td>
<td>Consumer DNEL, long-term</td>
<td>oral</td>
<td>systemic</td>
<td>26 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>dermal</td>
<td>systemic</td>
<td>319 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, long-term</td>
<td>dermal</td>
<td>systemic</td>
<td>888 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>89 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>500 mg/m³</td>
</tr>
</tbody>
</table>

PNEC values

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

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**

Avoid contact with skin, eyes and clothing. Provide adequate ventilation. 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.

- Glove material: Butyl caoutchouc (butyl rubber) >=0,5mm, NBR (Nitrile rubber) >=0,35mm
- Breakthrough time (maximum wearing time) >=480 min.

**Skin protection**

- impervious clothing

**Respiratory protection**

This product should not be used under conditions of poor ventilation unless a protective mask with an
according to Regulation (EC) No 1907/2006

appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state:</td>
<td>liquid</td>
<td></td>
</tr>
<tr>
<td>Colour:</td>
<td>clear</td>
<td></td>
</tr>
<tr>
<td>Odour:</td>
<td>alcoholic</td>
<td>3</td>
</tr>
<tr>
<td>pH-Value (at 20 °C):</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Changes in the physical state

- **Melting point:** -89.5 °C
- **Initial boiling point and boiling range:** 82 °C
- **Flash point:** 12 °C

Explosive properties

- In use, may form flammable/explosive vapour-air mixture.
- **Lower explosion limits:** 2 vol. %
- **Upper explosion limits:** 12 vol. %
- **Ignition temperature:** 425 °C

Auto-ignition temperature not auto-flammable

- **Vapour pressure:** 48 hPa
- **Density (at 20 °C):** 0.79 g/cm³
- **Water solubility:** soluble
- **Viscosity / dynamic:** 2.4 mPa·s
- **(at 20 °C):**
- **Solvent content:** 98%

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

Vapours may form explosive mixture with air.

10.4. Conditions to avoid

- Keep away from heat and sources of ignition.
- Take action to prevent static discharges.

10.5. Incompatible materials

- strong acids and oxidizing agents

10.6. Hazardous decomposition products

None known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
**Acute toxicity**

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Exposure route</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0</td>
<td>propan-2-ol; isopropyl alcohol; isopropanol</td>
<td>oral</td>
<td>LD50</td>
<td>4570 mg/kg</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>13400 mg/kg</td>
<td>Rabbit</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalative (4 h) vapour</td>
<td>LC50</td>
<td>30 mg/l</td>
<td>Rat</td>
<td></td>
</tr>
</tbody>
</table>

**Practical experience**

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

**SECTION 12: Ecological information**

**12.1. Toxicity**

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Aquatic toxicity</th>
<th>Dose</th>
<th>Source</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0</td>
<td>propan-2-ol; isopropyl alcohol; isopropanol</td>
<td>Acute fish toxicity</td>
<td>LC50</td>
<td>9640 mg/l</td>
<td>Pimephales promelas (fathead minnow)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute algae toxicity</td>
<td>ErC50</td>
<td>&gt;2000 mg/l</td>
<td>Desmodesmus subspicatus</td>
</tr>
</tbody>
</table>

**12.2. Persistence and degradability**

Readily biodegradable, according to appropriate OECD test.

**12.3. Bioaccumulative potential**

**Partition coefficient n-octanol/water**

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0</td>
<td>propan-2-ol; isopropyl alcohol; isopropanol</td>
<td>-0.16</td>
</tr>
</tbody>
</table>

**12.4. Mobility in soil**

The product evaporates readily.

**Further information**

- Water hazard class (WGK) 1: slightly water endangering
- Do not let product enter drains.

**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**

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances

Classified as hazardous waste.
Waste disposal number of used product
080111  WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF
COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND
PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish
containing organic solvents or other 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.

Contaminated packaging
Non-contaminated packages may be recycled.
Contaminated packages must be completely emptied and can be re-used following proper cleaning.
cleaning agent: Water

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 1219
14.2. UN proper shipping name: ISOPROPANOL (ISOPROPYL ALCOHOL)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
Hazard label: 3

Classification code: F1
Special Provisions: 601
Limited quantity: 1 L
Excepted quantity: E2
Transport category: 2
Hazard No: 33
Tunnel restriction code: D/E

Inland waterways transport (ADN)

14.1. UN number: UN 1219
14.2. UN proper shipping name: ISOPROPANOL (ISOPROPYL ALCOHOL)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
Hazard label: 3

Classification code: F1
Special Provisions: 601
Limited quantity: 1 L
Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number: UN 1219
14.2. UN proper shipping name: ISOPROPANOL (ISOPROPYL ALCOHOL)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
Hazard label: 3

Special Provisions: -
Limited quantity: 1 L
Excepted quantity: E2
EmS: F-E, S-D

Air transport (ICAO-TI/IATA-DGR)
14.1. UN number: UN 1219
14.2. UN proper shipping name: ISOPROPANOL (ISOPROPYL ALCOHOL)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
Hazard label: 3

Special Provisions: A180
Limited quantity Passenger: 1 L
Passenger LQ: Y341
Excepted quantity: E2
IATA-packing instructions - Passenger: 353
IATA-max. quantity - Passenger: 5 L
IATA-packing instructions - Cargo: 364
IATA-max. quantity - Cargo: 60 L

14.5. Environmental hazards
ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user
none

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
not relevant

SECTION 15: Regulatory information

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

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): 1 - slightly water contaminating

15.2. Chemical safety assessment
For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Relevant H and EUH statements (number and full text)
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

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 singulary 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.)