

according to Regulation (EC) No 1907/2006

BriteGuard Surface SEALER X

Revision date: 21.06.2018

Product code: BO5825000

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

BriteGuard Surface SEALER X

Further trade names

BO 5820500, 500 ml

BO 5825000, 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 | 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:

Flammable liquid: Flam. Liq. 2

Aspiration hazard: Asp. Tox. 1

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Reproductive toxicity: Repr. 2

Specific target organ toxicity - single exposure: STOT SE 3

Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

Highly flammable liquid and vapour.

May be fatal if swallowed and enters airways.

Causes skin irritation.

Causes serious eye irritation.

Suspected of damaging fertility.

May cause drowsiness or dizziness.

Toxic to aquatic life with long lasting effects.

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

propan-2-ol; isopropyl alcohol; isopropanol

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane

octamethylcyclotetrasiloxane

Signal word: Danger

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Pictograms:

Hazard statements

| | |
|-------|--|
| H225 | Highly flammable liquid and vapour. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H361f | Suspected of damaging fertility. |
| H336 | May cause drowsiness or dizziness. |
| H304 | May be fatal if swallowed and enters airways. |
| H411 | Toxic to aquatic life with long lasting effects. |

Precautionary statements

| | |
|----------------|--|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P235 | Keep cool. |
| 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. |

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

| CAS No | Chemical name | Quantity |
|------------|---|------------------|
| | EC No | Index No |
| | | REACH No |
| | Classification according to Regulation (EC) No. 1272/2008 [CLP] | |
| 67-63-0 | propan-2-ol; isopropyl alcohol; isopropanol | >50 % |
| | 200-661-7 | 603-117-00-0 |
| | | 01-2119457558-25 |
| | Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 | |
| 64742-49-0 | Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane | <20 % |
| | 921-024-6 | 01-2119475514-35 |
| | Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H315 H336 H304 H411 | |
| 556-67-2 | octamethylcyclotetrasiloxane | <25 % |
| | 209-136-7 | 014-018-00-1 |
| | Flam. Liq. 3, Repr. 2, Aquatic Chronic 4; H226 H361f H413 | |
| 110-54-3 | n-hexane | <0,5 % |
| | 203-777-6 | 601-037-00-0 |
| | Flam. Liq. 2, Repr. 2, Skin Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1, Aquatic Chronic 2; H225 H361f H315 H336 H373 H304 H411 | |

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

SECTION 4: First aid measures

according to Regulation (EC) No 1907/2006

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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.

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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 exhaust 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)**

| CAS No | Substance | ppm | mg/m ³ | fibres/ml | Category | Origin |
|----------|-------------|-----|-------------------|-----------|---------------|--------|
| 67-63-0 | Propan-2-ol | 400 | 999 | | TWA (8 h) | WEL |
| | | 500 | 1250 | | STEL (15 min) | WEL |
| 110-54-3 | n-Hexane | 20 | 72 | | TWA (8 h) | WEL |
| | | - | - | | STEL (15 min) | WEL |

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 |
| 64742-49-0 | Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane | | | |
| | Worker DNEL, long-term | dermal | systemic | 773 mg/kg bw/day |
| | Worker DNEL, long-term | inhalation | systemic | 2035 mg/m ³ |
| | Consumer DNEL, long-term | dermal | systemic | 699 mg/kg bw/day |
| | Consumer DNEL, long-term | inhalation | systemic | 608 mg/m ³ |
| | Consumer DNEL, long-term | oral | systemic | 699 mg/kg bw/day |

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PNEC values

| CAS No | Substance | |
|--|---|------------|
| Environmental compartment | | 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

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) $\geq 0,5\text{mm}$, NBR (Nitrile rubber) $\geq 0,35\text{mm}$
Breakthrough time (maximum wearing time) $\geq 480\text{ min}$.

Skin protection

impervious clothing

Respiratory protection

This product should not be used under conditions of poor ventilation unless a protective mask with an 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

Physical state: liquid
Colour: clear
Odour: alcoholic

pH-Value (at 20 °C): 3

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.

Test method

according to Regulation (EC) No 1907/2006

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| | |
|------------------------------------|------------------------|
| Lower explosion limits: | 2 vol. % |
| Upper explosion limits: | 12 vol. % |
| Ignition temperature: | 425 °C |
| Auto-ignition temperature | not auto-flammable |
| Vapour pressure: (at 20 °C) | 48 hPa |
| Density (at 20 °C): | 0,79 g/cm ³ |
| Water solubility: (at 20 °C) | soluble |
| Viscosity / dynamic: (at 20 °C) | 2,4 mPa·s |
| Solvent content: | 83% |

9.2. Other information

| | |
|----------------|----|
| Solid content: | 5% |
|----------------|----|

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 avoidKeep 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**

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Acute toxicity

| CAS No | Chemical name | | | | | |
|------------|---|---------------|-----------|---------|--------|--------|
| | Exposure route | Dose | | Species | Source | Method |
| 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 | | |
| 64742-49-0 | Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane | | | | | |
| | oral | LD50 mg/kg | >5840 | Rat | | |
| | dermal | LD50 mg/kg | >2920 | Rat | | |
| | inhalative (4 h) vapour | LC50 | 25,2 mg/l | Rat | | |

Practical experience

Other observations

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

| CAS No | Chemical name | | | | | |
|------------|---|---------------|-----------|---------|---|--------------------|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 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 | |
| 64742-49-0 | Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane | | | | | |
| | Acute fish toxicity | LC50 | 11,4 mg/l | 96 h | Oncorhynchus mykiss (Rainbow trout) | OECD 203 |
| | Acute algae toxicity | ErC50 mg/l | 30-100 | 72 h | Pseudokirchneriella subcapitata | OECD 201 |
| | Acute crustacea toxicity | EC50 | 3 mg/l | 48 h | Daphnia | OECD 202 |
| | Fish toxicity | NOEC mg/l | 2,04 | 28 d | Oncorhynchus mykiss (Rainbow trout) | |
| | Algae toxicity | NOEC | 3 mg/l | 3 d | Pseudokirchneriella subcapitata | OECD 201 |
| | Crustacea toxicity | NOEC | 1 mg/l | 21 d | Daphnia magna (Big water flea) | OECD 211 |
| 110-54-3 | n-hexane | | | | | |
| | Acute fish toxicity | LC50 | 2,5 mg/l | 96 h | Pimephales promelas | Geiger et al. 1990 |

12.2. Persistence and degradability

Readily biodegradable, according to appropriate OECD test.

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| CAS No | Chemical name | | | |
|------------|---|-------|----|--------|
| | Method | Value | d | Source |
| | Evaluation | | | |
| 64742-49-0 | Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane | | | |
| | OECD 301F | 98% | 28 | |
| | Readily biodegradable (according to OECD criteria). | | | |

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|----------|---|---------|
| 67-63-0 | propan-2-ol; isopropyl alcohol; isopropanol | -0,16 |
| 110-54-3 | n-hexane | 3,9 |

12.4. Mobility in soil

The product evaporates readily.

Further information

Water hazard class (WGK) 3: highly 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

140603 WASTE ORGANIC SOLVENTS, REFRIGERANTS AND PROPELLANTS (EXCEPT 07 AND 08); waste organic solvents, refrigerants and foam/aerosol propellants; other solvents and solvent mixtures; hazardous waste

Waste disposal number of used product

140603 WASTE ORGANIC SOLVENTS, REFRIGERANTS AND PROPELLANTS (EXCEPT 07 AND 08); waste organic solvents, refrigerants and foam/aerosol propellants; other solvents and solvent mixtures; hazardous waste

Waste disposal number of contaminated packaging

150102 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); plastic packaging

Contaminated packaging

Non-contaminated packages may be recycled.

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

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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
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



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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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 29: Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane

2004/42/EC (VOC): 83 % (656 g/l)

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): 3 - highly water contaminating

15.2. Chemical safety assessment

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

SECTION 16: Other information

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

| Classification | Classification procedure |
|-------------------------|--------------------------|
| Flam. Liq. 2; H225 | On basis of test data |
| Asp. Tox. 1; H304 | Calculation method |
| Skin Irrit. 2; H315 | Calculation method |
| Eye Irrit. 2; H319 | Calculation method |
| Repr. 2; H361f | Calculation method |
| STOT SE 3; H336 | Calculation method |
| Aquatic Chronic 2; H411 | |

Relevant H and EUH statements (number and full text)

| | |
|-------|--|
| H225 | Highly flammable liquid and vapour. |
| H226 | Flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H336 | May cause drowsiness or dizziness. |
| H361f | Suspected of damaging fertility. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H413 | May cause long lasting harmful effects 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.

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