

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 11.04.2014

Version number 1

Revision: 11.04.2014

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

- **1.1 Product identifier**

- **Trade name: Boley Bontech S, dry fasten**

- **1.2 Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

- **Application of the substance / the mixture**

Metal surface treatment

Cleaning agent/ Cleaner

- **1.3 Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

Gebr. Boley GmbH & Co. KG

Julius-Hölder-Str. 2

D – 70597 Stuttgart

Tel: +49-(0) 711 132 71-0

Fax: +49-(0) 711 132 71-90

Competent person acc. to Regulation (EC) No. 1907/2006:

Mr Lutz

- **Further information obtainable from:**

Mr Lutz

Tel: +49-(0) 711 132 71-0

Fax: +49-(0) 711 132 71-90

- **1.4 Emergency telephone number:**

Between the usual hours of business:

Monday - Thursday, between 8.00 - 12.00 o'clock

and between 13.00 - 16.00 o'clock

Friday, between 8.00 - 12.00 o'clock

Tel.: +49-(0) 711 132 71-0

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**

- **Classification according to Regulation (EC) No 1272/2008**

Flam. Liq. 3 H226 Flammable liquid and vapour.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

Eye Dam. 1 H318 Causes serious eye damage.

STOT SE 3 H336 May cause drowsiness or dizziness.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

Xn; Harmful

R65: Harmful: may cause lung damage if swallowed.

Xi; Irritant

R36: Irritating to eyes.

R10-67: Flammable. Vapours may cause drowsiness and dizziness.

- **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Has a narcotizing effect.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

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- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS02 GHS05 GHS07 GHS08

- **Signal word** Danger
- **Hazard-determining components of labelling:**
Alkane, C9-11-Iso
butanol
propan-2-ol
- **Hazard statements**
H226 Flammable liquid and vapour.
H318 Causes serious eye damage.
H336 May cause drowsiness or dizziness.
H304 May be fatal if swallowed and enters airways.
- **Precautionary statements**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P303+P361+P353 IF ON SKIN (or hair): Remove/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.
P310 Immediately call a POISON CENTER or doctor/physician.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterization: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.
- **Dangerous components:**

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CAS: 68551-16-6	Alkane, C9-11-Iso	50-80%
EINECS: 271-365-3	Xn R65 R10-66	
	Flam. Liq. 3, H226; Asp. Tox. 1, H304	
CAS: 67-63-0	propan-2-ol	10-25%
EINECS: 200-661-7	Xi R36; F R11	
Index number: 603-117-00-0	R67	
Reg.nr.: 01-2119457558-25-0000	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	
01-2119457558-25-0001		
01-2119457558-25-0002		
01-2119457558-25-0005		
CAS: 78-83-1	butanol	5-10%
EINECS: 201-148-0	Xi R37/38-41	
Index number: 603-108-00-1	R10-67	
	Flam. Liq. 3, H226; Eye Dam. 1, H318; Skin Irrit. 2, H315; STOT SE 3, H335-H336	

- **Regulation (EC) No 648/2004 on detergents / Labelling for contents**

aliphatic hydrocarbons ≥ 30%

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**

- **General information:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- **After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

- **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

- **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

- **4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

- **Information for doctor:**

Treat according to symptoms (decontamination, vital functions), no known specific antidote.

- **Hazards** If swallowed or in case of vomiting, danger of entering the lungs.

- **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**

- **Suitable extinguishing agents:**

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- **For safety reasons unsuitable extinguishing agents:** Water with full jet

- **5.2 Special hazards arising from the substance or mixture**

Can form explosive gas-air mixtures.

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Carbon monoxide (CO)

Carbon dioxide (CO₂)

- **5.3 Advice for firefighters**

- **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

- **Additional information**

Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

Wear protective equipment. Keep unprotected persons away.

Keep away from ignition sources.

Use respiratory protective device against the effects of fumes/dust/aerosol.

- **6.2 Environmental precautions:**

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to penetrate the ground/soil.

In case of seepage into the ground inform responsible authorities.

- **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

For large amounts: Pump off product.

- **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Store in cool, dry place in tightly closed receptacles.

Keep away from heat and direct sunlight.

- **Information about fire - and explosion protection:**

Keep ignition sources away - Do not smoke.

Fumes can combine with air to form an explosive mixture.

Flammable gas-air mixtures may form in empty receptacles.

Protect against electrostatic charges.

Use explosion-proof apparatus / fittings and spark-proof tools.

Danger of explosion if fluid enters the sewage system.

- **7.2 Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:** Prevent any seepage into the ground.

- **Information about storage in one common storage facility:**

Store away from oxidizing agents.

Store away from foodstuffs.

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- **Further information about storage conditions:**
Keep container tightly sealed.
The shelf life stated on the label is subject to correct storage of the product.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
 - **8.1 Control parameters**
 - **Ingredients with limit values that require monitoring at the workplace:**
-
- 78-83-1 butanol (5-10%)**
WEL (Great Britain) Short-term value: 231 mg/m³, 75 ppm
Long-term value: 154 mg/m³, 50 ppm
-
- **DNELs**
- 67-63-0 propan-2-ol**
Oral DNEL 26 mg/kg KG/Tag (general population long-term)
Dermal DNEL 888 mg/kg KG/Tag (worker long-term)
319 mg/kg KG/Tag (general population long-term)
Inhalative DNEL 500 mg/m³ (worker long-term)
89 mg/m³ (general population long-term)
-
- **PNECs**
- 67-63-0 propan-2-ol**
PNEC 2251 mg/l (sewage treatment plant)
552 mg/kg Sediment (sediment marine water)
552 mg/kg Sediment (sediment freshwater)
140.9 mg/l (water (marine water))
140.9 mg/l (water (freshwater))
140.9 mg/l (water (disposal intermittently))
- **Additional information:** The lists valid during the making were used as basis.
 - **8.2 Exposure controls**
 - **Personal protective equipment:**
 - **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Do not eat, drink, smoke or sniff while working.
Use skin protection cream for skin protection.
Do not carry product impregnated cleaning cloths in trouser pockets.
Avoid close or long term contact with the skin.
 - **Respiratory protection:**
Use suitable respiratory protective device only when aerosol or mist is formed.
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
 - **Recommended filter device for short term use:** Combination filter A-P2
 - **Protection of hands:**
Protective gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 - **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several

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substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Butyl rubber, BR

Chloroprene rubber, CR

· **Penetration time of glove material**

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Safety glasses

· **Body protection:**

Choose personal protective equipment according to activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to DIN-EN 465).

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:

Fluid

Colour:

Colourless

· **Odour:**

Characteristic

· **Odour threshold:**

Not determined.

· **pH-value:**

Not determined.

· **Change in condition**

Melting point/Melting range:

Undetermined.

Boiling point/Boiling range:

82 °C

· **Flash point:**

32 °C

· **Flammability (solid, gaseous):**

Not applicable.

· **Ignition temperature:**

390 °C

· **Decomposition temperature:**

Not determined.

· **Self-igniting:**

Product is not selfigniting.

· **Danger of explosion:**

Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· **Explosion limits:**

Lower:

0.7 Vol %

Upper:

12 Vol %

· **Vapour pressure:**

48 hPa

· **Density at 20 °C:**

0.747-0.754 g/cm³

· **Relative density**

Not determined.

· **Vapour density**

Not determined.

· **Evaporation rate**

Not determined.

· **Solubility in / Miscibility with water:**

Not miscible or difficult to mix.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

Dynamic:

Not determined.

Kinematic:

Not determined.

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- **Solvent content:**
 - Organic solvents:** 80.0 %
 - VOC (EC)** 80.00 %
- **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions**
Develops readily flammable gases/fumes.
Forms explosive gas mixture with air.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Strong oxidizing agents
- **10.6 Hazardous decomposition products:**
None if used correctly.
Concerning decomposition products in the event of fire, see Chapter 5.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
 - **Acute toxicity:**
 - **LD/LC50 values relevant for classification:**
-
- 67-63-0 propan-2-ol**
- | | | |
|------------|------------|--|
| Oral | LD 50 | 3600 mg/kg (mouse) |
| | | 5840 mg/kg (rat) (OECD - Prüfrichtlinie 401) |
| | | 6410 mg/kg (rabbit) |
| Dermal | LD 50 | 13900 mg/kg (rabbit) (OECD Prüfrichtlinie 402) |
| Inhalative | LC 50 (4h) | 72.6 mg/l (rat) |
| | | 30 mg/l (rabbit) |
| | LC 50 (6h) | > 25 mg/l (rat) (OECD Prüfrichtlinie 403) |
| | LC 50 (8h) | 47.5 mg/l (rat) |
- 78-83-1 butanol**
- | | | |
|--------|-------|---------------------|
| Oral | LD 50 | 2460 mg/kg (rat) |
| Dermal | LD 50 | 3400 mg/kg (rabbit) |
- **Primary irritant effect:**
 - **on the skin:**
More frequently or longer lasting skin contact may degrease and dry out the skin and therefore cause skin troubles and dermatitis.
 - **on the eye:**
Strong irritant with the danger of severe eye injury.
Irritating effect.
 - **Sensitization:** No sensitizing effects known.
 - **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Vapours have narcotic effect.
Irritant

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SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

- **67-63-0 propan-2-ol**

- EC 10 (18h) 5175 mg/l (Pseudomonas putida) (DIN 38412)

- EC 50 (48h) 13299 mg/l (Daphnia magna)

- EC 50 (72h) > 1000 mg/l (Desmodesmus subspicatus)
 - > 100 mg/l (Scenedesmus subspicatus)

- LC 50 (24h) 9714 mg/l (Daphnia magna)

- LC 50 (48h) 8970 mg/l (Leuciscus idus)

- LC 50 (96h) 9640 mg/l (Pimephales promelas)

- **12.2 Persistence and degradability** No further relevant information available.

- **Biodegradability**

- **67-63-0 propan-2-ol**

- Biolog. Abbaubarkeit (21d) 95 % (OECD 301 E)

- 99.9 % (OECD 303 A)

- **Other information:** no data available.

- **12.3 Bioaccumulative potential**

- **67-63-0 propan-2-ol**

- BCF 0.19 (Klu)

- **12.4 Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

- Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
 - Do not allow product to reach ground water, water course or sewage system.

- **12.5 Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**

- **Recommendation**

- Must not be disposed together with household garbage. Do not allow product to reach sewage system.
 - Must be specially treated adhering to official regulations.

- **Waste disposal key:**

- The mentioned waste codes are recommendations based on the product application as suggested by the manufacturer. Special applications and special disposal conditions at the applier's place may however require another waste code.

- **European waste catalogue**

- 11 01 98* other wastes containing dangerous substances

- 16 03 05* organic wastes containing dangerous substances

- **Uncleaned packaging:**

- **Recommendation:**

- Disposal must be made according to official regulations.

- Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

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SECTION 14: Transport information

- 14.1 UN-Number
- ADR, IMDG, IATA
- 14.2 UN proper shipping name
- ADR
- IMDG, IATA
- 14.3 Transport hazard class(es)
- ADR



- Class
- Label

UN1993
 UN1993 FLAMMABLE LIQUID, N.O.S.
 (Isoaliphatische Kohlenwasserstoffe im Bereich C9-C13, ISOBUTANOL (ISOBUTYL ALCOHOL))
 FLAMMABLE LIQUID, N.O.S. (Isoaliphatische Kohlenwasserstoffe im Bereich C9-C13, ISOPROPANOL (ISOPROPYL ALCOHOL))

3 (F1) Flammable liquids.
 3

- IMDG, IATA



- Class
- Label
- 14.4 Packing group
- ADR, IMDG, IATA
- 14.5 Environmental hazards:
- Marine pollutant:
- 14.6 Special precautions for user
- Danger code (Kemler):
- EMS Number:
- 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

3 Flammable liquids.
 3
 III
 No
 Warning: Flammable liquids.
 30
 F-E, S-E
 Not applicable.

- Transport/Additional information:

- ADR
- Limited quantities (LQ)
- Transport category
- Tunnel restriction code
- UN "Model Regulation":

5L
 3
 D/E
 UN1993, FLAMMABLE LIQUID, N.O.S.
 (Isoaliphatische Kohlenwasserstoffe im Bereich C9-C13, ISOBUTANOL (ISOBUTYL ALCOHOL)), 3, III

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SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **Information about limitation of use:**
Employment restrictions concerning juveniles must be observed.
Employment restrictions concerning pregnant and lactating women must be observed.
- **Class Share in %**
- **NK 80-100**
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
 - H225 Highly flammable liquid and vapour.
 - H226 Flammable liquid and vapour.
 - H304 May be fatal if swallowed and enters airways.
 - H315 Causes skin irritation.
 - H318 Causes serious eye damage.
 - H319 Causes serious eye irritation.
 - H335 May cause respiratory irritation.
 - H336 May cause drowsiness or dizziness.
 - R10 Flammable.
 - R11 Highly flammable.
 - R36 Irritating to eyes.
 - R37/38 Irritating to respiratory system and skin.
 - R41 Risk of serious damage to eyes.
 - R65 Harmful: may cause lung damage if swallowed.
 - R66 Repeated exposure may cause skin dryness or cracking.
 - R67 Vapours may cause drowsiness and dizziness.
- **Contact:**
Mr Lutz
Tel: +49-(0) 711 132 71-0
Fax: +49-(0) 711 132 71-90
- **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Flam. Liq. 2: Flammable liquids, Hazard Category 2
Flam. Liq. 3: Flammable liquids, Hazard Category 3
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
Asp. Tox. 1: Aspiration hazard, Hazard Category 1