

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 14.12.2010

Revision: 14.12.2010

1 Identification of the substance/preparation and of the company/undertaking

- **Product details**

- **Trade name:** *Bohricin*

- **Application of the substance / the preparation** *Disinfectants for instruments*

- **Manufacturer/Supplier:**

Favodent

Karl Huber GmbH

Greschbachstr. 17

76229 Karlsruhe, Germany

- **Further information obtainable from:** *Frau Apoth. Wolf*

- **Information in case of emergency:** *Tel.: 0179/5146888*

2 Hazards identification

- **Hazard description:**



C Corrosive

- **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.

R 10 Flammable.

R 34 Causes burns.

R 43 May cause sensitisation by skin contact.

- **Classification system:**

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

- **GHS label elements**



Danger

3.2/1B - Causes severe skin burns and eye damage.



Warning

2.6/3 - Flammable liquid and vapour.



Warning

3.4/1 - May cause an allergic skin reaction.

- **Prevention:**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/ equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Do not breathe dust/fume/gas/mist/vapours/spray.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

- **Response:**

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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*IF ON SKIN: Wash with plenty of soap and water.**IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.**IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**Immediately call a POISON CENTER or doctor/physician.**Specific treatment (see label).**If skin irritation or rash occurs: Get medical advice/attention.**Wash contaminated clothing before reuse.**In case of fire: Use for extinction: CO₂, powder or water spray.***· Storage:***Store in a well-ventilated place. Keep cool.**Store locked up.***· Disposal:***Dispose of contents/container in accordance with local/regional/national/international regulations.*

3 Composition/information on ingredients

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

CAS: 64-17-5 EINECS: 200-578-6	ethanol F; R 11 Danger: 2.6/2	2.5-10%
CAS: 67-63-0 EINECS: 200-661-7	propan-2-ol Xi, F; R 11-36-67 Danger: 2.6/2 Warning: 3.3/2A, 3.8/3	2.5-10%
CAS: 1310-58-3 EINECS: 215-181-3	potassium hydroxide C, Xn; R 22-35 Danger: 3.1.O/3; 3.2/1A	2.5-10%
CAS: 50-00-0 EINECS: 200-001-8	formaldehyde Carc. Cat. 3; T, C; R 23/24/25-34-40-43 Danger: 3.1.O/2, 3.1.D/2, 3.1.I/2, 3.4.S/1; 3.2/1B Warning: 3.6/2	≤ 2.5%

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

4 First aid measures

· General information: Immediately remove any clothing soiled by the product.**· 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.**· After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.**· After swallowing:** Drink plenty of water and provide fresh air. Call for a doctor immediately.

5 Fire-fighting measures

· Suitable extinguishing agents:*CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.*

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· **Protective equipment:** No special measures required.

6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

7 Handling and storage

- **Handling:**
- **Information for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **Ingredients with limit values that require monitoring at the workplace:**

64-17-5 ethanol

WEL Long-term value: 1920 mg/m³, 1000 ppm

67-63-0 propan-2-ol

WEL Short-term value: 1250 mg/m³, 500 ppm
Long-term value: 999 mg/m³, 400 ppm

1310-58-3 potassium hydroxide

WEL Short-term value: 2 mg/m³

50-00-0 formaldehyde

WEL Short-term value: 2.5 mg/m³, 2 ppm
Long-term value: 2.5 mg/m³, 2 ppm

- **Additional information:** The lists valid during the making were used as basis.

- **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.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.

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- **Respiratory protection:**
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.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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

- **Penetration time of glove material**

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

- **As protection from splashes gloves made of the following materials are suitable: Butyl rubber, BR**

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **General Information**

Form:	Fluid
Colour:	Light yellow
Odour:	Characteristic

- **Change in condition**

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: 78°C

- **Flash point:** > 25°C

- **Self-igniting:** Product is not selfigniting.

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

- **Vapour pressure at 20°C:** 23 hPa

- **Density at 20°C:** 1.03 g/cm³

- **Solubility in / Miscibility with water:** Fully miscible.

- **pH-value at 20°C:** >13

- **Solvent content:**
Organic solvents: 15.3 %

- **Solids content:** 4.8 %

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10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

1310-58-3 potassium hydroxide

Oral	LD50	273 mg/kg (rat)
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107-22-2 glyoxal

Oral	LD50	7070 mg/kg (rat)
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Dermal	LD50	10000 mg/kg (rabbit)
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- **Primary irritant effect:**

- **on the skin:** Caustic effect on skin and mucous membranes.

- **on the eye:** Strong caustic effect.

- **Sensitization:** Sensitization possible through skin contact.

- **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:

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- **Sensitisation** May cause sensitisation by skin contact.

12 Ecological information

- **General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralized.

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

13 Disposal considerations

- **Product:**

- **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packaging:**

- **Recommendation:** Disposal must be made according to official regulations.

- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

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14 Transport information

· Land transport ADR/RID (cross-border)



- **ADR/RID class:** 8 Corrosive substances.
- **Danger code (Kemler):** 83
- **UN-Number:** 2924
- **Packaging group:** III
- **Hazard label:** 8+3
- **Description of goods:** 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (POTASSIUM HYDROXIDE, ETHANOL (ETHYL ALCOHOL))

· Maritime transport IMDG:



- **IMDG Class:** 8
- **UN Number:** 2924
- **Label:** 8+3
- **Packaging group:** III
- **EMS Number:** F-E,S-C
- **Marine pollutant:** No
- **Proper shipping name:** FLAMMABLE LIQUID, CORROSIVE, N.O.S. (POTASSIUM HYDROXIDE, ETHANOL (ETHYL ALCOHOL))

· Air transport ICAO-TI and IATA-DGR:



- **ICAO/IATA Class:** 8
- **UN/ID Number:** 2924
- **Label:** 8+3
- **Packaging group:** III
- **Proper shipping name:** FLAMMABLE LIQUID, CORROSIVE, N.O.S. (POTASSIUM HYDROXIDE, ETHANOL)

- **UN "Model Regulation":** UN2924, FLAMMABLE LIQUID, CORROSIVE, N.O.S., 8 (3), III

15 Regulatory information

· Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· Code letter and hazard designation of product:



C Corrosive

- **Hazard-determining components of labelling:**
formaldehyde

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*potassium hydroxide***· Risk phrases:**

- 10 Flammable.
- 34 Causes burns.
- 43 May cause sensitisation by skin contact.

· Safety phrases:

- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
- 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- 60 This material and its container must be disposed of as hazardous waste.

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 R-phrases

- 11 Highly flammable.
- 22 Harmful if swallowed.
- 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
- 34 Causes burns.
- 35 Causes severe burns.
- 36 Irritating to eyes.
- 40 Limited evidence of a carcinogenic effect.
- 43 May cause sensitisation by skin contact.
- 67 Vapours may cause drowsiness and dizziness.

· 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)
 RID: Règlement internationale concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
 ICAO: International Civil Aviation Organization
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent