

# Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 01.07.2013

Revision: 03.06.2013

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

- **Product details**
- **Trade name:** Bifluorid 10
- **Application of the substance / the preparation** Dental varnish
- **Manufacturer/Supplier:**  
VOCO GmbH  
Anton-Flettner-Str. 1-3  
D-27472 Cuxhaven
- **Further information obtainable from:** Scientific department tel. +49 (0)4721-719-0
- **Information in case of emergency:** Giftinformationszentrum Mainz +49 (0)6131-19240

## 2 Hazards identification

- **Hazard description:**  
F Highly flammable
- **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 11 Highly flammable.  
R 31 Contact with acids liberates toxic gas.  
R 67 Vapours may cause drowsiness and dizziness.
- **Classification system:**  
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
- **Additional information:**  
Material should only be used with extreme caution in individuals who may not have control over their swallowing reflex (e.g. pre-school children and the disabled).

## 3 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 141-78-6 EINECS: 205-500-4	ethyl acetate	Xi, F; R 11-36-66-67	50-100%
CAS: 9004-70-0	Cellulose nitrate with alcohol	F; R 11	10-25%
CAS: 105-68-0 EINECS: 203-322-1	isopentyl propionate	F; R 11	10-25%
CAS: 7681-49-4 EINECS: 231-667-8	sodium fluoride	T, Xi; R 25-32-36/38	2.5-5%
	Clove oil	Xn, Xi; R 21/22-38-65	≤ 2.5%

## 4 First aid measures

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**  
Swallowing of larger amounts can lead to nausea, vomiting and/or diarrhoea.  
If symptoms persist consult doctor.

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## 5 Fire-fighting measures

- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **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:** 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).  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents

## 7 Handling and storage

- **Handling:**
- **Information for safe handling:**  
For dental use only.  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.
- **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:**  
See storage instructions on package  
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:**

141-78-6 ethyl acetate	
WEL	Short-term value: 400 ppm Long-term value: 200 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.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes.
- **Respiratory protection:** Not required.
- **Protection of hands:**



Protective gloves

- **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.

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- **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.
- **Eye protection:** Safety glasses

## 9 Physical and chemical properties

### · General Information

<b>Form:</b>	Fluid
<b>Colour:</b>	Whitish
<b>Odour:</b>	Characteristic

### · Change in condition

**Melting point/Melting range:** Undetermined.  
**Boiling point/Boiling range:** Undetermined.

· **Flash point:** < 10°C

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

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

· **Density at 20°C:** 1.01 g/cm<sup>3</sup>

· **Solubility in / Miscibility with water:** Not miscible or difficult to mix.

## 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:

Oral	LD50	5800 mg/kg (mouse)
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#### 141-78-6 ethyl acetate

Oral	LD50	5620 mg/kg (rabbit)
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Inhalative	LC50/4 h	1600 mg/l (rat)
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#### 7681-49-4 sodium fluoride

Oral	LD50	52 mg/kg (rat)
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### · Primary irritant effect:

· **on the skin:** No irritant effect.

· **on the eye:** 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:

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### 12 Ecological information

· **Additional 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.

### 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.

### 14 Transport information

· **Land transport ADR/RID (cross-border)**



· **ADR/RID class:** 3 Flammable liquids.

· **Danger code (Kemler):** 33

· **UN-Number:** 1993

· **Packaging group:** II

· **Hazard label:** 3

· **Description of goods:** 1993 FLAMMABLE LIQUID, N.O.S. (ETHYL ACETATE, NITROCELLULOSE WITH ALCOHOL)

· **Limited quantities (LQ) LQ4**

· **Transport category** 2

· **Tunnel restriction code** D/E

· **Maritime transport IMDG:**



· **IMDG Class:** 3

· **UN Number:** 1993

· **Label** 3

· **Packaging group:** II

· **EMS Number:** F-E,S-E

· **Marine pollutant:** No

· **Proper shipping name:** FLAMMABLE LIQUID, N.O.S. (ETHYL ACETATE, NITROCELLULOSE WITH ALCOHOL)

· **Air transport ICAO-TI and IATA-DGR:**



· **ICAO/IATA Class:** 3

· **UNID Number:** 1993

· **Label** 3

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- **Packaging group:** II
- **Proper shipping name:** FLAMMABLE LIQUID, N.O.S. (ETHYL ACETATE, NITROCELLULOSE WITH ALCOHOL)

## 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:**  
 F Highly flammable
- **Hazard-determining components of labelling:**  
sodium fluoride
- **Risk phrases:**
  - 11 Highly flammable.
  - 31 Contact with acids liberates toxic gas.
  - 67 Vapours may cause drowsiness and dizziness.
- **Safety phrases:**
  - 7 Keep container tightly closed.
  - 16 Keep away from sources of ignition - No smoking.
  - 23 Do not breathe fumes/aerosol.
  - 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.
  - 43 In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water.

## 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.

- **Department issuing MSDS:** Scientific departement
- **Contact:** Tel.: +49 (0)4721-719-0