

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 02.01.2014

Revision: 02.01.2014

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

- **Product details**
- **Trade name:** Bifluorid 12
- **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 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	5-10%

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.

5 Fire-fighting measures

- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.

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- **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.

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.

- **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.

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· **Eye protection:** Safety glasses

9 Physical and chemical properties

· General Information

Form: Fluid
Colour: Whitish
Odour: Fruit-like

· 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:** 0.95 g/cm³

· **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)
Inhalative	LC50/4 h	1600 mg/l (rat)

7681-49-4 sodium fluoride

Oral	LD50	52 mg/kg (rat)
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- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **Sensitization:** No sensitizing effects known.

12 Ecological information

- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

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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
- **UN/ID Number:** 1993
- **Label** 3
- **Packaging group:** II
- **Proper shipping name:** FLAMMABLE LIQUID, N.O.S. (ETHYL ACETATE, NITROCELLULOSE WITH ALCOHOL)

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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.

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.

37/39 Wear suitable 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

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