

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 02.09.2011

Revision: 02.09.2011

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

· Product details

- **Trade name:** *Adhäsiv Liquid Alginat*
- **Article number:** 193081
- **Application of the substance / the preparation** *Adhesives*

· Manufacturer/Supplier:

*ORBIS° Dental Handelsgesellschaft mbH
Schuckertstr. 21
D-48153 Münster
Tel.: +49(0)251 / 3226786
Telefax: +49(0) 251 / 7607201*

- **Further information obtainable from:** *info@orbis-dental.de*

· Information in case of emergency:

*Informationszentrale gegen Vergiftungen der
Universität Bonn (GIZ-Bonn)
Tel.: +49(0) 228 19240
Telefax: +49(0) 228 28733314*

2 Hazards identification

· Hazard description:



*Xn Harmful
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 63 Possible risk of harm to the unborn child.

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.

· GHS label elements



Danger

2.6/2 - Highly flammable liquid and vapour.



Warning

3.7/2 - Suspected of damaging fertility or the unborn child.



Warning

3.3/2A - Causes serious eye irritation.

3.8/3 - May cause drowsiness or dizziness.

· Prevention:

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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.

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Use only non-sparking tools.
 Take precautionary measures against static discharge.
 Avoid breathing dust/fume/gas/mist/vapours/spray.
 Wash thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Wear protective gloves/protective clothing/eye protection/face protection.
 Use personal protective equipment as required.

• **Response:**

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.

IF exposed or concerned: Get medical advice/attention.

Call a POISON CENTER or doctor/physician if you feel unwell.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use for extinction: CO₂, powder or water spray.

• **Storage:**

Store in a well-ventilated place. Keep container tightly closed.

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: 78-93-3 EINECS: 201-159-0	butanone	50.0-70.0%
	☒ Xi, ☒ F; R 11-36-66-67	
	Danger: ☠ 2.6/2 Warning: ⚠ 3.3/2A, 3.8/3	
CAS: 108-88-3 EINECS: 203-625-9	toluene	5.0-10.0%
	Repr. Cat. 3; ☒ Xn, ☒ Xi, ☒ F; R 11-38-48/20-63-65-67	
	Danger: ☠ 2.6/2; ☠ 3.10/1, 3.7/2, 3.9/2 Warning: ⚠ 3.2/2, 3.8/3	
CAS: 141-78-6 EINECS: 205-500-4	ethyl acetate	5.0-10.0%
	☒ Xi, ☒ F; R 11-36-66-67	
	Danger: ☠ 2.6/2 Warning: ⚠ 3.3/2A, 3.8/3	

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

4 First aid measures

• **General information:**

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

Immediately remove any clothing soiled by the product.

• **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.

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· **After swallowing:** Do not induce vomiting; call for medical help immediately.

5 Fire-fighting measures

- **Suitable extinguishing agents:** CO₂, 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).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents

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:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.

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:

78-93-3 butanone

WEL	Short-term value: 899 mg/m ³ , 300 ppm
	Long-term value: 600 mg/m ³ , 200 ppm
	Sk

108-88-3 toluene

WEL	Short-term value: 384 mg/m ³ , 100 ppm
	Long-term value: 191 mg/m ³ , 50 ppm
	Sk

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.

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- **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.
Avoid contact with the eyes and skin.
- **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:** Nitrile rubber, NBR
- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

· General Information

Form:	Fluid
Colour:	Dark red
Odour:	Characteristic Like ketone

· Change in condition

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: 77°C

· **Flash point:** -4°C

· **Ignition temperature:** 460°C

· **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: 1.2 Vol %

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Upper:	11.5 Vol %
· Vapour pressure at 20°C:	105 hPa
· Density at 20°C:	0.9 g/cm ³
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Solvent content:	
Organic solvents:	77.5 %
· Solids content:	22.5 %

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:**

78-93-3 butanone

Oral	LD50	3300 mg/kg (rat)
Dermal	LD50	5000 mg/kg (rabbit)

108-88-3 toluene

Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	12124 mg/kg (rabbit)
Inhalative	LC50/4 h	5320 mg/l (mouse)

- **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:
Irritant

12 Ecological information

- **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

13 Disposal considerations

- **Product:**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

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· **European waste catalogue**

08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 04 00	wastes from MFSU of adhesives and sealants (including waterproofing products)
08 04 09	waste adhesives and sealants containing organic solvents or other dangerous substances

· **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:** 1133
- **Packaging group:** II
- **Hazard label:** 3
- **Description of goods:** 1133 ADHESIVES

· **Maritime transport IMDG:**

- **IMDG Class:** 3
- **UN Number:** 1133
- **Label:** 3
- **Packaging group:** II
- **EMS Number:** F-E,S-E
- **Marine pollutant:** No
- **Proper shipping name:** ADHESIVES

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

- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1133
- **Label:** 3
- **Packaging group:** II
- **Proper shipping name:** ADHESIVES

· **UN "Model Regulation":** UN1133, ADHESIVES, 3, II

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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:**



Xn Harmful
F Highly flammable

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

toluene

- **Risk phrases:**

11 Highly flammable.
63 Possible risk of harm to the unborn child.
67 Vapours may cause drowsiness and dizziness.

- **Safety phrases:**

9 Keep container in a well-ventilated place.
16 Keep away from sources of ignition - No smoking.
37 Wear suitable gloves.
60 This material and its container must be disposed of as hazardous waste.
62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

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.
36 Irritating to eyes.
38 Irritating to skin.
48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
63 Possible risk of harm to the unborn child.
65 Harmful: may cause lung damage if swallowed.
66 Repeated exposure may cause skin dryness or cracking.
67 Vapours may cause drowsiness and dizziness.

- **Recommended restriction of use**

Produkt nur für den professionellen Gebrauch.

Die in diesem Sicherheitsdatenblatt enthaltenen Angaben basieren nach unserem besten Wissen und Gewissen auf aktuell verfügbaren Informationen über die korrekte Handhabung des Produktes unter normalen Bedingungen. Eine andere, in diesem Datenblatt nicht enthaltene Verwendung dieses Produktes zusammen mit anderen Prozessen/Verfahren obliegt der alleinigen Verantwortung des Anwenders. Dieses Dokument stellt keine explizite oder implizite Garantie bezüglich Produktqualität oder Eignung für einen bestimmten Zweck dar.

- **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

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LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

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· *** Data compared to the previous version altered.**

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