

Material Safety Data Sheet

According to 91/155 EC

Printing date 13.10.2003

Reviewed on 13.10.2003

1 Identification of substance:

· **Product details:**

· **Trade name:** Seal&Protect

· **Application of the substance / the preparation** Dental sealing material

· **Manufacturer/Supplier:**

DENTSPLY DeTrey GmbH

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· **Further information obtainable from:**

- Departement Analytical Research / Research & Development for technical information
- Departement Marketing & Sales for distribution of the safety data sheets

2 Composition/Data on components:

· **Chemical characterization**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 67-64-1 EINECS: 200-662-2	acetone Xi, F; R 11-36-66-67	25-50%
	methacrylate with the exception of those specified elsewhere in this Annex Xi; R 36/37/38	25-50%
	acrylates with the exception of those specified elsewhere in this Annex Xi, N; R 36/37/38-51/53	2.5-10%
CAS: 3380-34-5	2,4,4'-Trichlor-2'-hydroxy-diphenylether Xi, N; R 36/38-50/53	2.5-10%

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

3 Hazard identification

· **Hazard description:**

Xi Irritant

F Highly flammable

N Dangerous for the environment

· **Information concerning to particular hazards to man 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.

R 11 Highly flammable.

R 36/37/38 Irritating to eyes, respiratory system and skin.

R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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.

4 First aid measures

· **After inhalation** Supply fresh air; consult doctor in case of complaints.

· **After skin contact** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

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· **After swallowing** If symptoms persist consult doctor.

5 Fire fighting measures

- **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.
- **Protective equipment:** Wear self-contained respiratory protective device

6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:**
Inform respective authorities in case of seepage into water course or sewage system.
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** Product is intended for dental use only.
- **Information for safe handling:** Observe normal care for working with chemicals.
- **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.
Store only in the original receptacle.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.

8 Exposure controls and personal protection gear

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

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

67-64-1 acetone

OEL	Short-term value: 3000 mg/m ³ , 1250 ml/m ³
	Long-term value: 2400 mg/m ³ , 1000 ml/m ³

- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures**
The usual precautionary measures are to be adhered to when handling chemicals.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Respiratory protection:** Use suitable respiratory protective device in case of insufficient ventilation.

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· Protection of hands:

Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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.

· Eye protection:

Tightly sealed goggles.

· Body protection: Protective work clothing.

9 Physical and chemical properties:

· General Information

Form:	Fluid
Colour:	Yellow
Odour:	Characteristic

· Change in condition

Melting point/Melting range: undetermined
Boiling point/Boiling range: 55°C

· Flash point: -19°C**· Ignition temperature:** 465°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:	2.6 Vol %
Upper:	13.0 Vol %

· Vapour pressure at 20°C: 233 hPa**· Density:** Not determined**· Solubility in / Miscibility with****Water:** Fully miscible

10 Stability and reactivity

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

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· **Dangerous decomposition products:** No dangerous decomposition products known

11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:**
Irritant to skin and mucous membranes.
The unpolymerized product may be irritant to the skin for susceptible persons.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:**
Repeated or prolonged contact with the not polymerized product may cause sensitization for acrylates / methacrylates.
- **Additional toxicological information:**
Irritant
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.

12 Ecological information:

- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **General notes:**
Water danger class 3 (German Regulation) (Self-assessment): extremely hazardous for water.
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms

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.

14 Transport information

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



- **ADR/RID class:** 3 (F1) Flammable liquids.
- **Danger code (Kemler):** 33
- **UN-Number:** 1993
- **Packaging group:** II
- **Hazard label:** 3

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· **Description of goods:** 1993 FLAMMABLE LIQUID, N.O.S., (Acetone, mixture) (vapor pressure at 50°C at most 110 kPa)

· **Maritime transport IMDG:**



· **IMDG Class:** 3
 · **UN Number:** 1993
 · **Label** 3
 · **Packaging group:** II
 · **EMS Number:** F-E,S-D
 · **Marine pollutant:** No
 · **Proper shipping name:** FLAMMABLE LIQUID, N.O.S., (Acetone, mixture)

· **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., (Acetone, mixture)

15 Regulations

· **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:**



Xi Irritant
F Highly flammable
N Dangerous for the environment

· **Risk phrases:**

11 Highly flammable.
 36/37/38 Irritating to eyes, respiratory system and skin.
 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 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.
 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 28 After contact with skin, wash immediately with plenty of water.
 37 Wear suitable gloves.
 57 Use appropriate container to avoid environmental contamination.

· **National regulations**

· **Technical instructions (air):**

Class	Share in %
III	45.0

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· Waterhazard class: Water danger class 3 (Self-assessment): extremely hazardous for 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.

· Relevant R-phrases

- 11 *Highly flammable.*
- 36 *Irritating to eyes.*
- 36/37/38 *Irritating to eyes, respiratory system and skin.*
- 36/38 *Irritating to eyes and skin.*
- 50/53 *Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.*
- 51/53 *Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.*
- 66 *Repeated exposure may cause skin dryness or cracking.*
- 67 *Vapours may cause drowsiness and dizziness.*

· Department issuing MSDS: Analytical Research**· Contact: HotLine for urgent technical support: +49-7531-583-333**

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