

## Material Safety Data Sheet According to 91/155 EC

Printing date 14.04.2003

Reviewed on 11.04.2003

Hazardous according to criteria of Worksafe Australia

### 1 Identification of substance

· **Product details**

· **Trade name: Activator Universal Optosil-Xantopren Liquid**

· **Application of the substance / the preparation** Activator for dental impression material

· **Manufacturer/Supplier:**

Heraeus Kulzer GmbH & Co. KG  
Grüner Weg 11, D-63450 Hanau

Tel.: 0800 4372522

· **Informing department:**

Quality Assurance

Dr. Palussek Tel.: +49 2133 51-4911 / Fax: +49 2133 51-5016

· **Emergency information:** Call +49 30 19240 (24 hours).

### 2 Composition/Data on components:

· **Chemical characterization**

· **Description:** -

· **Dangerous components:**

CAS: 77-58-7	dibutyltin dilaurate	Xn; R 20/21/22-36/38-52/53	25-50%
EINECS: 201-039-8			
	Ethanol	F; R 11	0-5%

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

### 3 Hazards identification

· **Hazard designation:**



Xn Harmful

· **Information pertaining to particular dangers for 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.

R 10 Flammable.

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R 36/38 Irritating to eyes and skin.

R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· **Classification system**

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

### 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.

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

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

· **After eye contact**

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

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- **After swallowing** Instantly call for doctor.

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### 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.  
CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents**  
Water.  
Water with a full water jet.
- **Special hazards caused by the material, its products of combustion or flue gases:**  
Formation of toxic gases is possible during heating or in case of fire.
- **Protective equipment:** Put on breathing apparatus.

### 6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:**  
Inform respective authorities in case product reaches water or sewage system.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (diatomite, universal binders, for small amounts tissues).  
Dispose of contaminated material as waste according to item 13.  
Do not flush with water or aqueous cleansing agents
- **Additional information:** No dangerous materials are released.

### 7 Handling and storage

- **Handling**
  - **Information for safe handling:**  
Keep containers tightly sealed.  
Ensure good ventilation/exhaustion at the workplace.
  - **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Storage**
  - **Requirements to be met by storerooms and containers:** No special requirements.
  - **Information about storage in one common storage facility:** Not required.
  - **Further information about storage conditions:** None.

### 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with critical values that require monitoring at the workplace:**

#### Ethanol

PEL (USA)	1900 mg/m <sup>3</sup> , 1000 ml/m <sup>3</sup>
REL (USA)	1900 mg/m <sup>3</sup> , 1000 ml/m <sup>3</sup>
TLV (USA)	1880 mg/m <sup>3</sup> , 1000 ml/m <sup>3</sup>

- **Additional information:** The lists that were valid during the compilation were used as basis.
- **Personal protective equipment**
  - **General protective and hygienic measures**  
Keep away from foodstuffs, beverages and food.  
Instantly remove any soiled and impregnated garments.

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- Wash hands during breaks and at the end of the work.  
Avoid contact with the eyes and skin.
- **Breathing equipment:**  
Not necessary with efficient local exhaust. If exposition to vapours is possible, use breathing protective mask (filter A).
  - **Protection of hands:**  
Solvent resistant 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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
    - **For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:**  
PVA gloves
    - **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**  
Butyl rubber, BR  
Fluorocarbon rubber (Viton)  
Nitrile rubber, NBR  
Chloroprene rubber, CR
  - **Eye protection:** Protective goggles are recommended.
  - **Body protection:** Light weight protective clothing

### 9 Physical and chemical properties:

#### · General Information

- **Form:** Fluid
- **Colour:** Red
- **Smell:** Characteristic

#### · Change in condition

- **Melting point/Melting range:** Not determined
- **Boiling point/Boiling range:** 110°C

- **Flash point:** 28°C

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

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

- **Density at 20°C** 1.058 g/cm<sup>3</sup>

#### · Solubility in / Miscibility with

- **Water:** Not miscible or difficult to mix

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- **Solvent content:**
- **Organic solvents:** 2.0 %

### 10 Stability and reactivity

- **Conditions to be avoided:** No decomposition if used and stored according to specifications.
- **Dangerous reactions:** No dangerous reactions known
- **Dangerous products of composition:** None

### 11 Toxicological information

- **Acute toxicity:**

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

Oral	LD50	3300 mg/kg (rat)
Inhalative	LC50/4 h	4 mg/l (rat)

#### 77-58-7 dibutyltin dilaurate

Oral	LD50	175 mg/kg (rat)
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- **Primary irritant effect:**
  - **on the skin:** Irritant for skin and mucous membranes.
  - **on the eye:** Irritant effect.
- **Sensitization:** No sensitizing effect known.
- **Additional toxicological information:**  
Harmful  
Irritant  
The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:

### 12 Ecological information:

- **General notes:**  
Water hazard class 2 (calculated according to VwVwS): hazardous for water.  
Do not allow product to reach ground water, water bodies or sewage system.  
Danger to drinking water if even small quantities leak into soil.

### 13 Disposal considerations

- **Product:**
  - **Recommendation**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **European waste catalogue**  
18 01 06 chemicals consisting of or containing dangerous substances
- **Uncleaned packagings:**
  - **Recommendation:** Disposal must be made according to official regulations.

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### 14 Transport information

#### · Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)



- **ADR/RID-GGVS/E Class:** 3 (FT1) Flammable liquids.
- **Kemler Number:** 36
- **UN-Number:** 1992
  - **Packaging group:** III
- **Label:** 3+6.1
- **Designation of goods:** 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (POLYCONDENSATED ALKOXY SILANES, dibutyltin dilaurate)

#### · Maritime transport IMDG/GGVSea:



- **IMDG/GGVSea Class:** 3
- **UN Number:** 1992
  - **Label:** 3+6.1
- **Packaging group:** III
- **EMS Number:** F-E,S-D
- **Marine pollutant:** Yes
- **Correct technical name:** FLAMMABLE LIQUID, TOXIC, N.O.S. (POLYCONDENSATED ALKOXY SILANES, dibutyltin dilaurate)

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



- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1992
  - **Label:** 3+6.1
- **Packaging group:** III
- **Correct technical name:** FLAMMABLE LIQUID, TOXIC, N.O.S. (POLYCONDENSATED ALKOXY SILANES, dibutyltin dilaurate)

### 15 Regulatory information

#### · Designation according to EC guidelines:

The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)

#### · Code letter and hazard designation of product:

Xn Harmful

#### · Hazard-determining components of labelling:

dibutyltin dilaurate

#### · Risk phrases:

10 Flammable.

20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

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- 36/38 *Irritating to eyes and skin.*  
52/53 *Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.*

· **Safety phrases:**

- 9 *Keep container in a well-ventilated place.*  
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.*  
61 *Avoid release to the environment. Refer to special instructions/safety data sheets.*

· **National regulations**

· **Technical instructions (air):**

Class	Share in %
III	0-5

· **Water hazard class:**

*Water hazard class 2 (calculated according to VwVwS): hazardous for water.*

### 16 Other information:

*These data are based on our present knowledge. However, they 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.*  
20/21/22 *Harmful by inhalation, in contact with skin and if swallowed.*  
36/38 *Irritating to eyes and skin.*  
52/53 *Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.*

· **Contact:**

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- **\* Data compared to the previous version altered.**

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