

Material Safety Data Sheet acc. to ISO/DIS 11014

Printing date 05/30/2005

Reviewed on 05/24/2005

1 Identification of substance:

· **Product details:**

· **Trade name:** Gluma Etch 35 Fluid

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

· **Manufacturer/Supplier:**

Heraeus Kulzer GmbH
Grüner Weg 11, D-63450 Hanau

Tel.: 0800 4372522

· **Information department:**

Dr. Barbara Bräu
Tel.: +49 2133 51-8521 / Fax: +49 2133 51-5016
e-mail: barbara.braeu@heraeus.com

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

2 Composition/Data on components:

· **Chemical characterization**

· **Description:** -

· **Dangerous components:**

7664-38-2	orthophosphoric acid	C; R 34	25-50%
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· **Additional information** For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

· **Hazard description:**



C Corrosive

· **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 34 Causes burns.

· **Classification system**

The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.

· **NFPA ratings for USA (scale 0-4)**



· **HMIS-Ratings (Scale 0-4)**



4 First aid measures

- **General information** Immediately remove any clothing soiled by the product.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.

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- **After eye contact** Rinse opened eye for several minutes under running water. Then consult a doctor.
 - **After swallowing** Drink copious amounts of water and provide fresh air. Immediately call a doctor.

5 Fire fighting measures

- **Suitable extinguishing agents** void
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:**
Prevent seepage into sewage system, workpits and cellars.
Dilute with plenty of water.
- **Measures for cleaning/collecting:**
Absorb with liquid binding material (diatomite, universal binders, for small amounts tissues).
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
- **Additional information:** No dangerous substances are released.

7 Handling and storage

- **Handling**
 - **Information for safe handling:** Keep receptacles tightly sealed.
 - **Information about protection against explosions and fires:** No special measures required.
- **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:** None.

8 Exposure controls and personal protection

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

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

7664-38-2 orthophosphoric acid

PEL ()	1 mg/m ³
REL ()	Short-term value: 3 mg/m ³ Long-term value: 1 mg/m ³
TLV ()	Short-term value: 3 mg/m ³ Long-term value: 1 mg/m ³

- **Additional information:** The lists that were valid during the creation were used as basis.
- **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 and skin.
 - **Breathing equipment:** Not required.

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· **Protection of hands:**

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.

· **For the permanent contact gloves made of the following materials are suitable:**

- Natural rubber, NR
- Butyl rubber, BR
- Fluorocarbon rubber (Viton)
- Nitrile rubber, NBR
- Chloroprene rubber, CR
- PVC or PE gloves

· **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**

- Natural rubber, NR

· **Eye protection:**

Protective goggles are recommended.

Tightly sealed goggles.

· **Body protection:** Light weight protective clothing

9 Physical and chemical properties:

· **General Information**

- **Form:** Fluid
- **Color:** Red
- **Odor:** Odorless

· **Change in condition**

- **Melting point/Melting range:** undetermined
- **Boiling point/Boiling range:** 100°C (212°F)

· **Flash point:** Not applicable

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Vapor pressure at 20°C (68°F):** 23 hPa (17 mm Hg)

· **Density at 20°C (68°F):** 1.230 g/cm³

· **Solubility in / Miscibility with**

- **Water:** Fully miscible

· **pH-value at 20°C (68°F):** 0.3

· **Solvent content:**

- **Organic solvents:** 0.0 %
- **Water:** 56.5 %

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· **Solids content:** 4.1 %

10 Stability and reactivity

- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of decomposition:** none

11 Toxicological information

- **Acute toxicity:**

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

7664-38-2 orthophosphoric acid

Oral	LD50	1530 mg/kg (rat)
Dermal	LD50	2740 mg/kg (can)
Inhalative	LC50/4 h	>850 mg/l (rat)

- **Primary irritant effect:**
 - **on the skin:** Caustic effect on skin and mucous membranes.
 - **on the eye:** Strong caustic effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

Corrosive
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
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:

- **General notes:**

Must not reach bodies of water or drainage ditch undiluted or unneutralized.
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 of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
 - **Recommendation:** Disposal must be made according to official regulations.
 - **Recommended cleansing agent:** Water, if necessary with cleansing agents.

- **DOT regulations:**



· **Hazard class:** 8

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- Identification number: UN1805
- Packing group: III
- Proper shipping name (technical name): PHOSPHORIC ACID, LIQUID
- Label: 8

· Land transport ADR/RID (cross-border)



- ADR/RID class: 8 Corrosive substances
- Danger code (Kemler): 80
- UN-Number: 1805
- Packaging group: III
- Label: 8
- Description of goods: 1805 PHOSPHORIC ACID, LIQUID

· Maritime transport IMDG:



- IMDG Class: 8
- UN Number: 1805
- Label: 8
- Packaging group: III
- EMS Number: F-A, S-B
- Marine pollutant: No
- Proper shipping name: PHOSPHORIC ACID, LIQUID

· Air transport ICAO-TI and IATA-DGR:



- ICAO/IATA Class: 8
- UN/ID Number: 1805
- Label: 8
- Packaging group: III
- Proper shipping name: PHOSPHORIC ACID, LIQUID

15 Regulations

· SARA Section 355 (extremely hazardous substances)

None of the ingredients is listed.

· SARA Section 313 (specific toxic chemical listings)

7664-38-2 orthophosphoric acid

· TSCA (Toxic Substances Control Act)

All ingredients are listed.

· Prop 65 - Chemicals known to cause cancer

None of the ingredients is listed.

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· **Prop 65 - Chemicals known to cause reproductive toxicity**

None of the ingredients is listed.

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **IARC (International Agency for Research on Cancer)**

9002-89-5 Polyvinylalkohol (vollverseift)

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· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Markings 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:**

C Corrosive

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

orthophosphoric acid

· **Risk phrases:**

34 Causes burns.

· **Safety phrases:**

20 When using do not eat or drink.

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.

45 In case of accident or if you feel unwell, seek medical advice immediately.

· **National regulations**

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly 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**

34 Causes burns.

· **Department issuing MSDS:** Safety department

· **Contact:** Dr. Tuchscherer Tel.: +49 6081 959-287

· * Data compared to the previous version altered.

USA