

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:** **Solitaire 2**

· **Application of the substance / the preparation** Dental filling 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:** Composition based on methacrylates

· **Dangerous components:**

24650-42-8	2,2-Dimethoxy-1,2-diphenyl-ethan-1-on	N; R 50/53	< 1%
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· **Additional information** For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

· **Hazard description:** not applicable

· **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.

· **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** No special measures required.

· **After skin contact** Generally the product does not irritate the skin.

· **After eye contact** Rinse opened eye for several minutes under running water.

· **After swallowing** Induce vomiting and seek advice of physician.

5 Fire fighting measures

· **Suitable extinguishing agents** Use fire fighting measures that suit the environment.

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- **Protective equipment:** No special measures required.

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6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** No special measures required.
- **Measures for cleaning/collecting:**
Absorb with liquid binding material (diatomite, universal binders, for small amounts tissues).
- **Additional information:** No dangerous substances are released.

7 Handling and storage

- **Handling**
 - **Information for safe handling:** No special measures required.
 - **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:** Keep cool, if possible (not above 25 °C).

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:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
 - **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment**
 - **General protective and hygienic measures**
The usual precautionary measures for handling chemicals should be followed.
 - **Breathing equipment:** Not required.
 - **Protection of hands:** Not required.
 - **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.
 - **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:**
Natural rubber, NR
 - **Eye protection:** Not absolutely necessary.
 - **Body protection:** Light weight protective clothing

9 Physical and chemical properties:

· General Information

- **Form:** Pasty
- **Color:** According to product specification
- **Odor:** Nearly odorless

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- **Change in condition**
 - **Melting point/Melting range:** undetermined
 - **Boiling point/Boiling range:** 100°C (212°F)
- **Flash point:** 101°C (214°F)
- **Ignition temperature:** 400°C (752°F)
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Vapor pressure at 20°C (68°F):** 40 hPa (30 mm Hg)
- **Density at 20°C (68°F):** 1.740 g/cm³
- **Solubility in / Miscibility with**
 - **Water:** Not miscible or difficult to mix
- **Solvent content:**
 - **Organic solvents:** 0.0 %
- **Solids content:** 75.0 %

10 Stability and reactivity

- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of decomposition:** none
- **Additional information:**
Product might polymerize after considerable exceeding of recommended storage time or temperature.

11 Toxicological information

- **Acute toxicity:**
 - **Primary irritant effect:**
 - **on the skin:** No irritant effect.
 - **on the eye:** No irritating effect.
 - **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

12 Ecological information:

- **General notes:**
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.

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13 Disposal considerations

· **Product:**

· **Recommendation**

Small quantities can be polymerized by light and the cured solid material can be disposed of with the regular garbage. Larger quantities must be disposed of following the regulations of the local authorities.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

· **DOT regulations:**

· **Hazard class:** -

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

· **ADR/RID class:** -

· **Maritime transport IMDG:**

· **IMDG Class:** -

· **Marine pollutant:** No

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

· **ICAO/IATA Class:** -

15 Regulations

· **SARA Section 355 (extremely hazardous substances)**

None of the ingredients is listed.

· **SARA Section 313 (specific toxic chemical listings)**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act)**

41137-60-4	diurethandimethacrylate
	Triethylenglycoldimethacrylat
2530-85-0	3-trimethoxysilylpropyl methacrylate
24650-42-8	2,2-Dimethoxy-1,2-diphenyl-ethan-1-on
131-57-7	oxybenzone
67362-76-9	2-(n-Butoxy)ethyl-4-dimethylaminobenzoat
10373-78-1	2,3-Bornandion
68186-91-4	Kupfer-, Chrom-, Eisenoxid-Spinell
68186-90-3	Titan-, Antimon-, Chromoxid-Rutil
	Butyl-hydroxy-toluol

· **Prop 65 - Chemicals known to cause cancer**

None of the ingredients is listed.

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

None of the ingredients is listed.

· **Carcinogeny categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

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

Butyl-hydroxy-toluol

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· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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· TLV (Threshold Limit Value established by ACGIH)	
Butyl-hydroxy-toluol	A4
· 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:**

Observe the general safety regulations when handling chemicals
The product is not subject to classification according to the calculation methods of the "General Classification Guideline for Preparations of the EU" as issued in the latest valid version.
The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (GefStoffV).

· **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**

50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

· **Department issuing MSDS:** Safety department

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

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

USA