

**Material Safety Data Sheet**  
acc. to ISO/DIS 11014

Printing date 11/17/2006

Reviewed on 11/17/2006

**1 Identification of substance**

- **Product details**
- **Trade name:** CLEARFIL ESTHETIC CEMENT & DC BOND TRY IN PASTE (Universal, Chroma, Clear, Bleach, Opaque)
- **Article number:** 133-T
- **Application of the substance / the preparation** Dental colour matching test material
- **Manufacturer:**  
Kuraray Medical Inc.  
1621 Sakazu, Kurashiki, Okayama 710-0801,  
Japan
- **Supplier:**  
Kuraray America, Inc.  
600 Lexington Avenue, 26th Floor, New York,  
NY10022 U.S.A  
Tel: (800)879-1676
- **Information department:** Supplier

**2 Composition/Data on components**

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

56-81-5 glycerol	75-95%
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- **Other ingredients:**  
Silanated silica filler  
Silanated colloidal silica  
Colloidal silica  
Pigments

**3 Hazards identification**

- **Hazard description:** Not applicable.
- **Information pertaining to particular dangers for man and environment:**  
The product does not have to be labelled due to the calculation procedure of international guidelines.
- **Classification system:**  
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- **NFPA ratings (scale 0 - 4)**  
Health = 0  
Fire = 1  
Reactivity = 0
- **HMIS-ratings (scale 0 - 4)**  
Health = 0  
Fire = 1  
Reactivity = 0

**4 First aid measures**

- **General information:** No special measures required.
- **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.

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- **After swallowing:** If symptoms persist consult doctor.

**5 Fire fighting measures**

- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Protective equipment:** No special measures required.

**6 Accidental release measures**

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:** Pick up mechanically.
- **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:** Store in a cool location (2-25°C).
- **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:**

**56-81-5 glycerol**

PEL	15* 5** mg/m <sup>3</sup> *total dust **respirable fraction
TLV	10 ppm

- **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:**  
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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

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· **Eye protection:** Not required.

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**9 Physical and chemical properties**

· **General Information**

<b>Form:</b>	Pasty
<b>Color:</b>	Colored
<b>Odor:</b>	Odorless

· **Change in condition**

<b>Melting point/Melting range:</b>	18.2 °C (glycerol)
<b>Boiling point/Boiling range:</b>	290 °C (glycerol)

· **Flash point:** 160 °C (glycerol)

· **Ignition temperature:** 400.0 °C (glycerol)

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

· **Explosion limits:**

<b>Lower:</b>	0.9 Vol % (glycerol)
<b>Upper:</b>	Not applicable

· **Vapor pressure:** 0.1 hPa (20°C, glycerol)

· <b>Density:</b>	1.2 g/cm <sup>3</sup>
· <b>Vapour density</b>	Not applicable

· **Solubility in / Miscibility with**

<b>Water:</b>	Insoluble.
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· **pH-value:** Not applicable

· **Segregation coefficient (n-octanol/water):** Not applicable

**10 Stability and reactivity**

· **Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

· **Dangerous reactions** No dangerous reactions known.

· **Dangerous products of decomposition:** Carbon monoxide and carbon dioxide

**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 internally approved calculation methods for preparations:

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.

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**12 Ecological information**

**· General notes:**

Water hazard class 1 (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:** Smaller quantities can be disposed of with household waste.

**· Uncleaned packagings:**

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

**14 Transport information**

**· 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 ingredient is listed.

**· Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

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

All ingredients are listed.

**· Proposition 65**

**· Chemicals known to cause cancer:**

None of the ingredients is listed.

**· Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

**· Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

**· Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

**· Cancerogenity categories**

**· EPA (Environmental Protection Agency)**

None of the ingredients is listed.

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

None of the ingredients is listed.

**· 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.

**· Product related hazard informations:**

Observe the general safety regulations when handling chemicals.

The product is not subject to identification regulations according to directives on hazardous materials.

**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.

**· Version: 1**

USA