

Printing date 03/11/2015

Reviewed on 04/01/2015



1 Identification

- **Product identifier**
- **Trade name:** CLEARFIL DC BOND; Liquid B
- **Article number:** CA107-B
- **Application of the substance / the mixture** Dental bonding material
- **Details of the supplier of the safety data sheet**
- **Manufacturer:**
Kuraray Noritake Dental Inc.
1621 Sakazu, Kurashiki, Okayama 710-0801,
Japan
- **Contact information:**
Kuraray America, Inc.
33 Maiden Lane, 6th Floor, New York,
NY 10038 U.S.A.
Tel: 800-879-1676
Fax: 888-700-5200
Website: www.kuraraydental.com

2 Composition/information on ingredients

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

· **Dangerous components:**

64-17-5	ethanol	 Flam. Liq. 2, H225;  Carc. 1A, H350	25-50%
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· **Other ingredients:**

Water
Accelerators
Catalysts

3 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapour.

- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms** GHS02
- **Signal word** Warning
- **Hazard statements**
H226 Flammable liquid and vapour.
- **Precautionary statements**
 - P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 - P241 Use explosion-proof electrical/ventilating/lighting/equipment.
 - P280 Wear protective gloves / eye protection / face protection.
 - P240 Ground/bond container and receiving equipment.
 - P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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· **Hazard description:**· **WHMIS-symbols:**

B2 - Flammable liquid

· **Classification system:**· **NFPA ratings (scale 0 - 4)**

Health = 0

Fire = 3

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

Health = 0

Fire = 3

Reactivity = 0

4 First-aid measures

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

5 Fire-fighting measures

- **Suitable extinguishing agents:**
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

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7 Handling and storage

- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **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 receptacles:** Store in a refrigerator (2-8 °C).
- **Information about storage in one common storage facility:**
 - Store away from oxidizing agents.
 - Store away from reducing agents.
- **Further information about storage conditions:**
 - Keep receptacle tightly sealed.
 - Store in cool, dry conditions in well sealed receptacles.
 - Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/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:**

64-17-5 ethanol

EL	Short-term value: 1000 ppm
EV	Long-term value: 1.900 mg/m ³ , 1.000 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **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 through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

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9 Physical and chemical properties

· General Information	
· Appearance:	
Form:	Liquid
Color:	Transparent
· Odor:	Alcohol-like
· pH-value:	Not applicable
· Change in condition	
Melting point/Melting range:	-114.5 °C (ethanol)
Boiling point/Boiling range:	78 °C (ethanol)
· Flash point:	13 °C
· Ignition temperature:	425.0 °C (ethanol)
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits:	
Lower:	3.5 Vol % (ethanol)
Upper:	15.0 Vol % (ethanol)
· Vapor pressure:	59.0 hPa (20 °C, ethanol)
· Density:	0.8 g/cm ³
· Vapour density	1.6 g/cm ³ (ethanol, air=1)
· Solubility in / Miscibility with Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	-0.32 (ethanol)
· Other information	No further relevant information available.

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Carbon monoxide and carbon dioxide

11 Toxicological information

- **Acute toxicity:**

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

64-17-5 ethanol

Oral	LD50	3450 mg/kg (mouse) 7060 mg/kg (rat)
Inhalative	LC50/4 h	20000 mg/l (rat)
	LD50	3600 mg/kg (rat - intraperitoneal)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.

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· **Additional toxicological information:**· **Carcinogenic categories**· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is listed.

12 Ecological information· **Persistence and degradability** No further relevant information available.· **Bioaccumulative potential** No further relevant information available.· **Additional 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· **Waste treatment methods**· **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.**14 Transport information**· **UN-Number**· **DOT, TDG, IMDG, IATA**

UN1170

· **UN proper shipping name**· **DOT**

Ethanol solutions

· **TDG**

1170 Ethanol solutions (Ethyl alcohol solutions)

· **IMDG**

ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

· **IATA**

ETHANOL SOLUTION

· **Transport hazard class(es)**· **DOT**· **Class**

3 Flammable liquids

· **Label**

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· TDG, IMDG, IATA



· Class 3 Flammable liquids
 · Label 3

· Packing group
 · DOT, TDG, IMDG, IATA III

· Environmental hazards:
 · Marine pollutant: No

· Special precautions for user Warning: Flammable liquids
 · Danger code (Kemler): 30
 · EMS Number: F-E,S-D

· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

· UN "Model Regulation": UN1170, Ethanol solutions (Ethyl alcohol solutions), 3, III

15 Regulatory information

· 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:

64-17-5 ethanol

· Cancerogenity categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

64-17-5 ethanol

A4

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

None of the ingredients is listed.

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· **Canadian substance listings:**· **Canadian Domestic Substances List (DSL)**

All ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**

64-17-5 ethanol

· **Canadian Ingredient Disclosure list (limit 1%)**

None of the ingredients is listed.

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: 2**· **Relevant phrases**

H225 Highly flammable liquid and vapor.

H350 May cause cancer.

· **Abbreviations and acronyms:**

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Carc. 1A: Carcinogenicity, Hazard Category 1A

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