

## 1 Identification

- **Product identifier**
- **Trade name:** CLEARFIL DC Activator
- **Article number:** CA196
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Dental materials
- **Details of the supplier of the safety data sheet**
- **Supplier**  
Kuraray America, Inc.  
32 Old Slip, 7th Floor, New York,  
NY 10005 U.S.A.  
Tel: 800-879-1676  
Website: www.kuraraydental.com
- **Further information obtainable from:** Supplier
- **Emergency telephone number:**  
CHEMTREC; day and night, within USA and Canada  
1-800-424-9300 CCN706984 or +1 703-527-3887 (collect calls accepted)

## 2 Hazard identification

- **Classification of the substance or mixture**  
Flammable Liquids - Category 2 H225 Highly 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** Danger
- **Hazard-determining components of labeling:**  
ethanol
- **Hazard statements**  
H225 Highly flammable liquid and vapour.
- **Precautionary statements**

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting] equipment.
P242	Use non-sparking tools.
P243	Take actions to prevent static discharges.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

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**3 Composition/Information on ingredients**

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

· **Dangerous components:**

64-17-5 ethanol

 Flammable Liquids - Category 2, H225

&gt;90%

· **Other ingredients:**

Catalyst  
Accelerator

**4 First-aid measures**

- **Description of 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:**  
Do not induce vomiting; immediately call for medical help.  
If symptoms persist consult doctor.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

**5 Fire-fighting measures**

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, 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.
- **Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures** See Section 8.
- **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.

**7 Handling and storage**

- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.

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- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **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**

· **Control parameters**

· **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 <sup>3</sup> , 1,000 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Additional information about design of technical systems:** No further data; see section 7.
- **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:** Safety glasses

**9 Physical and chemical properties**

- **Information on basic physical and chemical properties**
- **Physical state** Liquid
- **Color:** Transparent
- **Odor:** Alcohol-like
- **Melting point/Melting range:** -114.5 °C (ethanol)
- **Boiling point/Boiling range:** 78 °C (ethanol)

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· <b>Flammability (solid, gaseous):</b>	Flammable.
· <b>Explosion limits:</b>	
· <b>Lower:</b>	3.5 Vol % (ethanol)
· <b>Upper:</b>	15.0 Vol % (ethanol)
· <b>Flash point:</b>	13 °C (ethanol)
· <b>Auto ignition temperature:</b>	425.0 °C (ethanol)
· <b>Decomposition temperature:</b>	Not determined
· <b>pH-value:</b>	Not determined
· <b>Viscosity:</b>	Not determined
· <b>Kinematic viscosity</b>	Not determined.
· <b>Solubility in / Miscibility with</b>	
· <b>Water:</b>	Fully miscible.
· <b>Partition coefficient (n-octanol/water):</b>	-0.32 (ethanol)
· <b>Vapor pressure:</b>	
· <b>Density:</b>	0.79 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined
· <b>Relative vapor density</b>	1.6 g/cm <sup>3</sup> (ethanol, air=1)

· **Other information**

· **Important information on protection of health and environment, and on safety.**

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

## 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Carbon monoxide and carbon dioxide

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.

· **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)

- **on the skin:** Based on available data, the classification criteria are not met.
- **on the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **Specific target organ toxicity - single exposure**  
Based on available data, the classification criteria are not met.

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**Safety Data Sheet**  
according to HPR, Schedule 1

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Version 4

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- **Specific target organ toxicity - repeated exposure**  
Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **Subacute to chronic toxicity:**
- **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.


**12 Ecological information**

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects**
- **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**

- **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.

**14 Transport information**

- **UN-Number**
- **DOT/TDG** UN1170
- **IMDG, IATA** 1170
- **UN proper shipping name**
- **DOT/TDG, IMDG, IATA** ETHANOL (ETHYL ALCOHOL), mixture
- **Transport hazard class(es)**
- **DOT/TDG (Transport dangerous goods):**
- 
- **Class** 3 Flammable liquids
- **Label** 3

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· Label	3
· IMDG, IATA	
· Class	3 Flammable liquids
· Label	3
· Packing group	
· DOT/TDG, IMDG, IATA	II
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Flammable liquids
· Hazard identification number (Kemler code):	33
· 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, II

**15 Regulatory information**

· Safety, health and environmental regulations/legislation specific for the substance or mixture

· Canadian substance listings:

· Canadian Domestic Substances List (DSL)	
64-17-5	ethanol
· Canadian Non-Domestic Substances List (NDSL)	
None of the ingredients is 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.

· Relevant phrases

H225 Highly flammable liquid and vapour.

· Abbreviations and acronyms:

DOT: US Department of Transportation  
ELINCS: European List of Notified Chemical Substances

· \* Data compared to the previous version altered.