1 Identification

· Product identifier
· Trade name: COE-SOFT (Liquid)

· Relevant identified uses of the substance or mixture and uses advised against
  Dental material
  The product is intended for professional use.
  To avoid risks for humans and environment obtain instructions.

· Application of the substance / the mixture
  Manufacture of dental prothesis

· Details of the supplier of the safety data sheet
  · Manufacturer/Supplier:
    GC America Inc.
    3737 W. 127th Street
    Alsip, IL 60803
    USA
    sds@gcamerica.com
  · Information department: Regulatory Affairs
  · Emergency telephone number:
    During normal opening times (Monday–Friday 8:00 AM–5:00 PM Central Time): +1 (708) 597-0900
    Transportation (CHEMTREC®) Emergency Telephone No. +1 (800) 424-9300

2 Hazard(s) identification

· Classification of the substance or mixture
  Flam. Liq. 2 H225 Highly flammable liquid and vapor.
  Skin Irrit. 2 H315 Causes skin irritation.
  Eye Irrit. 2B H320 Causes eye irritation.
  Skin Sens. 1 H317 May cause an allergic skin reaction.
  STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.
  Aquatic Acute 2 H401 Toxic to aquatic life.
  Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

· Additional information:
  The information provided is in regards to the toxicity and hazard rating(s) of the individual component(s)
  in the formulation. The associated risk(s) depends on the route(s) of exposure. The hazard rating
  system is based entirely on the existence of the risk(s) and does not take into account the likelihood of
  reduced risk(s) through proper usage and handling.

· Label elements
· GHS label elements
  The product is classified and labeled according to the Globally Harmonized System (GHS).
· Hazard pictograms

GHS02  GHS07  GHS08  GHS09

(Contd. on page 2)
Trade name: COE-SOFT (Liquid)

· Signal word Danger

· Hazard-determining components of labeling:
  benzyl salicylate
  ethyl alcohol
  peppermint oil

· Hazard statements
  Highly flammable liquid and vapor.
  Causes skin and eye irritation.
  May cause an allergic skin reaction.
  Causes damage to organs through prolonged or repeated exposure.
  Toxic to aquatic life.
  Toxic to aquatic life with long lasting effects.

· Precautionary statements
  Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  Do not breathe dust/fume/gas/mist/vapors/spray.
  Wear protective gloves / eye protection / face protection.
  If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  Store in a well-ventilated place. Keep cool.
  Dispose of contents/container in accordance with local/regional/national/international regulations.

· Hazard not otherwise classified (HNOC): None known.

· Other hazards

· Results of PBT and vPvB assessment
  · PBT: Not applicable.
  · vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures
  · Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:
  
<table>
<thead>
<tr>
<th>CAS</th>
<th>Substance</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>118-58-1</td>
<td>benzyl salicylate</td>
<td>25 - &lt; 50%</td>
</tr>
<tr>
<td>64-17-5</td>
<td>ethyl alcohol</td>
<td>10 - &lt; 25%</td>
</tr>
<tr>
<td>8006-90-4</td>
<td>peppermint oil</td>
<td>0.5 - &lt; 1%</td>
</tr>
</tbody>
</table>

· Additional information:
  If a substance is marked with **, then substance is a trade secret. This is allowed under OSHA’s Hazard Communication Standard (HCS) as a trade secret and under GHS as Confidential Business Information (CBI).

4 First-aid measures

· Description of first aid measures
  · General information:
    Immediately remove any clothing soiled by the product.
    If symptoms persist consult doctor.

  · After inhalation:
    Supply fresh air; consult doctor in case of complaints.
    In case of unconsciousness place patient stably in side position for transportation.
Trade name: COE-SOFT (Liquid)

- **After skin contact:**
  Immediately wash with water and soap and rinse thoroughly.
  Seek medical treatment.
- **After eye contact:**
  Protect unharmed eye.
  Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**
  Rinse out mouth and then drink plenty of water.
  If symptoms persist consult doctor.
- **Information for doctor:**
  - Most important symptoms and effects, both acute and delayed: Allergic reactions
  - Indication of any immediate medical attention and special treatment needed
  No further relevant information available.

---

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water
- **Special hazards arising from the substance or mixture**
  Formation of toxic gases is possible during heating or in case of fire.
  No further relevant information available.
- **Advice for firefighters**
  - **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**
  Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

---

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  Remove persons from danger area.
  Keep away from ignition sources.
  Avoid contact with the eyes and skin.
  Wear protective clothing.
- **Environmental precautions:**
  Do not allow product to reach sewage system or any water course.
  Inform respective authorities in case of seepage into water course or sewage system.
  Do not allow to penetrate the ground/soil.
  In case of seepage into the ground inform responsible authorities.
- **Methods and material for containment and cleaning up:**
  Ensure adequate ventilation.
  Absorb liquid components with liquid-binding material.
  Dispose of the collected material according to regulations.
- **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.
- **Protective Action Criteria for Chemicals**
  Protective Action Criterion (PAC); Protective Action Criteria (PACs); Lower Explosive Limit (LEL)
  - * indicates the PAC value is between 10% and up to 50% of the LEL (10% LEL ≤ PAC < 50% LEL).
  - ** indicates the PAC value is between 50% and up to 100% of the LEL (50% LEL ≤ PAC < 100% LEL).
  - *** indicates the PAC value is at 100% or more of the LEL (PAC ≥ LEL).
Trade name: COE-SOFT (Liquid)

excerpt from Introduction to PAC Table 2 – PAC Rev. 29 – May 2016

- PAC-1:
  - CAS: 64-17-5 ethyl alcohol 1,800 ppm
  - isopropyl alcohol 400 ppm
  - CAS: 119-36-8 methyl salicylate 2.3 ppm

- PAC-2:
  - CAS: 64-17-5 ethyl alcohol 3300 ppm
  - isopropyl alcohol 2000 ppm
  - CAS: 119-36-8 methyl salicylate 25 ppm

- PAC-3:
  - CAS: 64-17-5 ethyl alcohol 15000 ppm
  - isopropyl alcohol 12000 ppm
  - CAS: 119-36-8 methyl salicylate 150 ppm

* 7 Handling and storage

  - Handling:
    - Precautions for safe handling
      - Observe instructions for use.
      - Ensure good ventilation/exhaustion at the workplace.
      - Prevent formation of aerosols.
      - Avoid contact with the eyes and skin.
    - Information about protection against explosions and fires:
      - Keep ignition sources away - Do not smoke.
      - Protect from heat.
      - Protect against electrostatic charges.
      - Do not spray on a naked flame or any incandescent material.
  
  - Conditions for safe storage, including any incompatibilities
  
  - Storage:
    - Requirements to be met by storerooms and receptacles:
      - Store in a cool location.
      - Store only in unopened original receptacles.
    - Information about storage in one common storage facility:
      - Store away from foodstuffs.
    - Further information about storage conditions:
      - Observe instructions for use / storage.
      - Keep receptacle tightly sealed.
      - Store in cool, dry conditions in well sealed receptacles.
      - Protect from heat and direct sunlight.
      - Store in a cool place.

  - 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.
Control parameters

Components with limit values that require monitoring at the workplace:
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

<table>
<thead>
<tr>
<th>CAS: 64-17-5 ethyl alcohol</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL</td>
</tr>
<tr>
<td>REL</td>
</tr>
<tr>
<td>TLV</td>
</tr>
</tbody>
</table>

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

Personal protective equipment:

General protective and hygienic measures:
The usual precautionary measures for handling chemicals should be followed. Avoid contact with the eyes and skin. Wash hands before breaks and at the end of work. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing.

Breathing equipment:

Suitable respiratory protective device recommended.

Protection of hands:

Protective gloves

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:
Manufacturing sites:
Wear safety glasses with side shields (or goggles).
Distribution, Workplace, and Household Settings:
No special protective equipment required

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information
Appearance:
Form: Liquid
Trade name: COE-SOFT (Liquid)

- **Color:** Clear
- **Odor:** Characteristic
- **Odor threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: 173 °C (343.4 °F)
- **Flash point:** 16 °C (60.8 °F)
- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:** Undetermined.
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not self-igniting.
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
- **Explosion limits:**
  - Lower: 3.5 Vol %
  - Upper: 15 Vol %
- **Vapor pressure:** Not determined.
- **Density at 20 °C (68 °F):** 1.04 g/cm³ (8.68 lbs/gal)
- **Relative density** Not determined.
- **Vapor density** Not determined.
- **Evaporation rate** Not determined.
- **Solubility in / Miscibility with**
  - Water: Insoluble.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - Dynamic at 20 °C (68 °F): 34 mPas
  - Kinematic: Not determined.
- **Solvent content:**
  - Organic solvents: 14.8 %
  - VOC content: 14.80 %
- **Other information** No further relevant information available.

**10 Stability and reactivity**

- **Reactivity** No further relevant information available.
- **Chemical stability** Stable at ambient temperature.
- **Thermal decomposition / conditions to be avoided:**
  - No decomposition if used 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.
11 Toxicological information

- Information on toxicological effects
  - Acute toxicity:
  - LD/LC50 values that are relevant for classification: No further relevant information available.
  - Primary irritant effect:
    - on the skin: Irritant to skin and mucous membranes.
    - on the eye: Irritating effect.
  - Sensitization: Sensitization possible through skin contact.
  - Experience with humans:
    May cause damage to central nervous system.
    May cause damage to lungs.
  - Additional toxicological information:
    The product shows the following dangers according to internally approved calculation methods for preparations:
    Irritant

- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    | Substance       | Carcinogenicity |
    |-----------------|-----------------|
    | ethyl alcohol   | Group 1         |
    | isopropyl alcohol | Group 3       |
  - NTP (National Toxicology Program)
    None of the ingredients is listed.
  - OSHA-Ca (Occupational Safety & Health Administration)
    None of the ingredients is listed.

- Carcinogenic categories' legend:
  IARC Group 1: The agent is carcinogenic to humans.
  IARC Group 2A: The agent is probably carcinogenic to humans.
  IARC Group 2B: The agent is possibly carcinogenic to humans.
  IARC Group 3: The agent is not classifiable as to its carcinogenicity to humans.
  IARC Group 4: The agent is probably not carcinogenic to humans.
  NTP K: Known to be human carcinogen.
  NTP R: Reasonably anticipated to be human carcinogen.

- Additional carcinogenic information:
  The substance ethyl alcohol, also known as ethanol, is listed by IARC as a Group 1 carcinogen but in alcoholic beverage consumption. IARC Volume 100E (2012) "Personal Habits and Indoor Combustions" stated in its monograph “Consumption of Alcoholic Beverages” the following evaluation: “Ethanol in alcoholic beverages is carcinogenic to humans (Group 1).” GC products are not consumable alcoholic beverages.
  - Repeated dose toxicity. No further relevant information available.
  - CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
    No further relevant information available.
12 Ecological information

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
- Behavior in environmental systems:
- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.
- Additional ecological information:
- General notes:
  - Water hazard class 2 (Self-assessment): hazardous for water
  - Do not allow product to reach ground water, water course or sewage system.
  - Danger to drinking water if even small quantities leak into the ground.
  - Toxic for aquatic organisms
- Results of PBT and vPvB assessment:
  - PBT: Not applicable.
  - vPvB: Not applicable.
- Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
  - Recommendation:
    - Dispose of contents / container in accordance with local / regional / national / international regulations.
- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  - DOT, ADR, IMDG, IATA: UN1170
- UN proper shipping name
  - DOT: Ethanol solutions
  - ADR: 1170 ETHANOL SOLUTION
  - IMDG, IATA: ETHANOL SOLUTION
- Transport hazard class(es)
  - DOT, IMDG, IATA: 3 Flammable liquids
## Trade name: COE-SOFT (Liquid)

<table>
<thead>
<tr>
<th>· Label</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>· ADR</td>
<td></td>
</tr>
<tr>
<td>· Class</td>
<td>3 (F1) Flammable liquids</td>
</tr>
<tr>
<td>· Label</td>
<td>3</td>
</tr>
<tr>
<td>· Packing group</td>
<td></td>
</tr>
<tr>
<td>· DOT, ADR, IMDG, IATA</td>
<td>II</td>
</tr>
<tr>
<td>· Environmental hazards:</td>
<td></td>
</tr>
<tr>
<td>· Marine pollutant:</td>
<td>No</td>
</tr>
<tr>
<td>· Special precautions for user</td>
<td>Warning: Flammable liquids</td>
</tr>
<tr>
<td>· Danger code (Kemler):</td>
<td>33</td>
</tr>
<tr>
<td>· EMS Number:</td>
<td>F-E,S-D</td>
</tr>
<tr>
<td>· Stowage Category</td>
<td>A</td>
</tr>
<tr>
<td>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>· Transport/Additional information:</td>
<td></td>
</tr>
<tr>
<td>· ADR</td>
<td></td>
</tr>
<tr>
<td>· Exected quantities (EQ)</td>
<td>Code: E2</td>
</tr>
<tr>
<td></td>
<td>Maximum net quantity per inner packaging: 30 ml</td>
</tr>
<tr>
<td></td>
<td>Maximum net quantity per outer packaging: 500 ml</td>
</tr>
<tr>
<td>· IMDG</td>
<td></td>
</tr>
<tr>
<td>· Limited quantities (LQ)</td>
<td>1L</td>
</tr>
<tr>
<td>· Excepted quantities (EQ)</td>
<td>Code: E2</td>
</tr>
<tr>
<td></td>
<td>Maximum net quantity per inner packaging: 30 ml</td>
</tr>
<tr>
<td></td>
<td>Maximum net quantity per outer packaging: 500 ml</td>
</tr>
<tr>
<td>· UN &quot;Model Regulation&quot;:</td>
<td>UN 1170 ETHANOL SOLUTION, 3, II</td>
</tr>
</tbody>
</table>

## 15 Regulatory information

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

· SARA (Superfund Amendments and Reauthorization Act)

· Section 355 (extremely hazardous substances):

  None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

  isopropyl alcohol

· TSCA (Toxic Substances Control Act):

  All ingredients are listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

  None of the ingredients is listed.
Trade name: COE-SOFT (Liquid)

- **EPA carcinogenic categories’ legend:**
  - EPA weight-of-evidence (WOE) (1986 guidelines, but still valid)
  - A: human carcinogen
  - B1: probable carcinogen, limited human evidence
  - B2: probable carcinogen, sufficient evidence in animals
  - C: possible human carcinogen
  - D: not classifiable
  - E: evidence of noncarcinogenicity

- **TLV (Threshold Limit Value established by ACGIH):**
  - Ethyl alcohol A3
  - Isopropyl alcohol A4

- **ACGIH carcinogenic categories’ legend:**
  - A1: confirmed human carcinogen
  - A2: suspected human carcinogen
  - A3: confirmed animal carcinogen with unknown relevance to humans
  - A4: not classifiable as a human carcinogen
  - A5: not suspected as a human carcinogen

- **NIOSH-Ca (National Institute for Occupational Safety and Health):**
  - None of the ingredients is listed.

- **GHS label elements:**
  - The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms:**
  - GHS02 GHS07 GHS08 GHS09

- **Signal word** Danger

- **Hazard-determining components of labeling:**
  - Benzyl salicylate
  - Ethyl alcohol
  - Peppermint oil

- **Hazard statements:**
  - Highly flammable liquid and vapor.
  - Causes skin and eye irritation.
  - May cause an allergic skin reaction.
  - Causes damage to organs through prolonged or repeated exposure.
  - Toxic to aquatic life.
  - Toxic to aquatic life with long lasting effects.

- **Precautionary statements:**
  - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  - Do not breathe dust/fume/gas/mist/vapors/spray.
  - Wear protective gloves / eye protection / face protection.
  - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - Store in a well-ventilated place. Keep cool.
  - Dispose of contents/container in accordance with local/regional/national/international regulations.
Trade name: COE-SOFT (Liquid)

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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**16 Other information**

- **Department issuing SDS:** Regulatory Affairs
- **Contact:**
  Regulatory Affairs
  Telephone No. +1 (708) 597-0900
  sds@gcamerica.com
- **Date of preparation / last revision** 01/10/2019 / 2
- **Abbreviations and acronyms:**
  GHS: Globally Harmonized System of Classification and Labelling of Chemicals
  HCS: Hazard Communication Standard (USA)
  MSDS: Material Safety Data Sheet
  SDS: Safety Data Sheet
  ECHA: European Chemicals Agency
  OSHA: Occupational Safety and Health Administration (USA)
  PAC: Protective Action Criterion (USA)
  PACs: Protective Action Criteria (USA)
  HNOC: Hazard Not Otherwise Classified (USA)
  LEL: Lower Explosive Limit
  UEL: Upper Explosive Limit
  OSHA-Ca: Occupational Safety and Health Administration – Carcinogens or potential carcinogens regulated (USA)
  NIOSH-Ca: National Institute for Occupational Safety and Health – Carcinogen List (USA)
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  ACGIH: American Conference of Governmental Industrial Hygienists
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  VOC: Volatile Organic Compounds (USA, EU)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  NIOSH: National Institute for Occupational Safety
  TLV: Threshold Limit Value
  PEL: Permissible Exposure Limit
  REL: Recommended Exposure Limit
  Flam. Liq. 2: Flammable liquids – Category 2
  Skin Irrit. 2: Skin corrosion/irritation – Category 2
  Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B
  Skin Sens. 1: Skin sensitisation – Category 1
  STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
  Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard – Category 2
  Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
- **Sources**
  - Manufacturers’ MSDS/SDSs
  - TOXNET (http://toxnet.nlm.nih.gov/)
  - ECHA (http://echa.europa.eu/)
  - EnviChem (www.echemportal.org)
- **Notes:**
  CAS Registry Number is a Registered Trademark of the American Chemical Society.
  CHEMTREC® is a registered service mark of the American Chemistry Council, Inc.
- **Data compared to the previous version altered.** This version replaces all previous versions.

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