1 Identification

· Product identifier
  · Trade name: Opalescence™ Boost 35% Non-PF (Mixed)
  · Article number: 1005860, 1005861
  · Index number: SDS 390-001.02
· Application of the substance / the mixture Professional Dental Bleaching Gel

· Details of the supplier of the safety data sheet
  · Manufacturer/Supplier: Ultradent Products Inc.
    505 W. Ultradent Drive (10200 S)
    South Jordan, UT 84095-3942
    USA
    onlineordersupport@ultradent.com
  · Information department: Customer Service
  · Emergency telephone number:
    CHEMTREC (NORTH AMERICA) : (800) 424-9300
    (INTERNATIONAL) : +(703) 527-3887

2 Hazard(s) identification

· Classification of the substance or mixture
  · GHS05 Corrosion
    Eye Dam. 1  H318  Causes serious eye damage.
  · GHS07
    Acute Tox. 4  H302  Harmful if swallowed.
    Acute Tox. 4  H332  Harmful if inhaled.

· Label elements
  · GHS label elements
    Medical Devices are exempt from the labeling requirements of the Globally Harmonized System (GHS).
  · Hazard pictograms GHS05, GHS07
  · Signal word Danger

· Hazard-determining components of labeling:
  · Hydrogen Peroxide

· Hazard statements
  · Harmful if swallowed or if inhaled.
  · Causes serious eye damage.

· Precautionary statements
  · Avoid breathing dust/fume/gas/mist/vapors/spray
  · Wash thoroughly after handling.
  · Do not eat, drink or smoke when using this product.
  · Use only outdoors or in a well-ventilated area.
  · Wear eye protection / face protection.
  · If on skin: Wash with plenty of water.
**Trade name: Opalescence™ Boost 35% Non-PF (Mixed)**

IF INHALED: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Dispose of contents/container in accordance with local/regional/national/international regulations.

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

Health = 3
Fire = 0
Reactivity = 0

· HMIS-ratings (scale 0 - 4)

Health = 3
Fire = 0
Reactivity = 0
```

· 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>Substance</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>56-81-5 Glycerine</td>
<td>&gt;25-≤50%</td>
</tr>
<tr>
<td>7722-84-1 Hydrogen Peroxide</td>
<td>&gt;10-≤25%</td>
</tr>
<tr>
<td>1310-58-3 Potassium Hydroxide</td>
<td>≤2.5%</td>
</tr>
</tbody>
</table>

### 4 First-aid measures

- **Description of first aid measures**
- **General information:**
  Immediately remove any clothing soiled by the product. Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**
  This product is a viscous gel, therefore chance of inhalation is extremely low. Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
- **After skin contact:**
  Immediately wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Do not induce vomiting; call for medical help immediately.

**Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.
5 Fire-fighting measures

· Extinguishing media
  Suitable extinguishing agents: Water spray

· Special hazards arising from the substance or mixture
  In closed unventilated containers, risk of rupture due to the increased pressure from decomposition. Contact with combustible material may cause fire.

· Advice for firefighters
  Use water spray to cool fire exposed surfaces and protect personnel. Move containers from fire area if there isn't any risk.

· Protective equipment:
  Wear fully protective suit.
  Mouth respiratory protective device.

· Additional information
  Move containers from fire area if there isn't any risk.
  Cool endangered receptacles with water spray.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures
  Mount respiratory protective device.
  Keep away from ignition sources
  Keep people at a distance and stay on the windward side.
  Wear protective equipment. Keep unprotected persons away.

· Environmental precautions:
  Do not allow to enter sewers/ surface or ground water.

· Methods and material for containment and cleaning up:
  Hydrogen Peroxide may be decomposed by adding sodium metabisulfite or sodium sulfite after diluting to about 5%.
  Stop the flow of material, if this is without risk.
  Combustible materials exposed to hydrogen peroxide should be immediately submerged in or rinsed with large amounts of water to ensure that all hydrogen peroxide is removed. Residual hydrogen peroxide that is allowed to dry (upon evaporation hydrogen peroxide can concentrate) on organic materials such as paper, fabrics, cotton, leather, wood or other combustibles can cause the material to ignite and result in fire.
  Dilute with plenty water.
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Use neutralizing agent.
  Dispose contaminated material as waste according to item 13.
  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.

· Protective Action Criteria for Chemicals

  PAC-1:

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Chemical Name</th>
<th>Limit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>56-81-5</td>
<td>Glycerine</td>
<td>45 mg/m³</td>
</tr>
<tr>
<td>7722-84-1</td>
<td>Hydrogen Peroxide</td>
<td>10 ppm</td>
</tr>
<tr>
<td>1310-58-3</td>
<td>Potassium Hydroxide</td>
<td>0.18 mg/m³</td>
</tr>
</tbody>
</table>

(Contd. on page 4)
Trade name: Opalescence™ Boost 35% Non-PF (Mixed)

- **PAC-2:**
  - 56-81-5 Glycerine 180 mg/m³
  - 7722-84-1 Hydrogen Peroxide 50 ppm
  - 1310-58-3 Potassium Hydroxide 2 mg/m³

- **PAC-3:**
  - 56-81-5 Glycerine 1,100 mg/m³
  - 7722-84-1 Hydrogen Peroxide 100 ppm
  - 1310-58-3 Potassium Hydroxide 54 mg/m³

### 7 Handling and storage

- **Handling:**
  - **Precautions for safe handling:**
    Safety glasses should be used by the patient and doctor. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EN).
    Ensure good ventilation/exhaustion at the workplace.
    Prevent formation of aerosols.
  - **Information about protection against explosions and fires:**
    Combustible materials exposed to hydrogen peroxide should be immediately submerged in or rinsed with large amounts of water to ensure that all hydrogen peroxide is removed. Residual hydrogen peroxide that is allowed to dry (upon evaporation hydrogen peroxide can concentrate) on organic materials such as paper, fabrics, cotton, leather, wood or other combustibles can cause the material to ignite and result in fire.
    Keep respiratory protective device available.

- **Conditions for safe storage, including any incompatibilities**

- **Storage:**
  - **Requirements to be met by storerooms and receptacles:**
    Provide ventilation for receptacles.
    Suitable material for receptacles and pipes: Stainless steel.
    Suitable material for receptacles and pipes: Aluminium.
    Suitable material for receptacles and pipes: glass.
    Store only in the original receptacle.
  - **Information about storage in one common storage facility:**
    Store away from combustible materials.
    Store away from reducing agents.
    Store away from metals.
  - **Further information about storage conditions:**
    Store receptacle in a well ventilated area.
    Store in a cool place.
    See product labelling.
    Keep receptacle tightly sealed.

### 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
Trade name: Opalescence™ Boost 35% Non-PF (Mixed)

### Control Parameters

**Components with limit values that require monitoring at the workplace:**

<table>
<thead>
<tr>
<th>Component</th>
<th>PEL</th>
<th>Long-term value</th>
<th><strong>mg/m³</strong></th>
<th>REL</th>
<th>Long-term value</th>
<th><strong>mg/m³</strong></th>
<th>TLV</th>
<th>Long-term value</th>
<th><strong>mg/m³</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>56-81-5 Glycerine</td>
<td>PEL</td>
<td>Long-term value: 15* <strong>mg/m³</strong></td>
<td>mist; *total dust **respirable fraction</td>
<td>TLV</td>
<td>TLV withdrawn-insufficient data human occup. exp.</td>
<td>TWA</td>
<td>Short-term value: 15 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7722-84-1 Hydrogen Peroxide</td>
<td>PEL</td>
<td>Long-term value: 1.4 mg/m³, 1 ppm</td>
<td>REL</td>
<td>Long-term value: 1.4 mg/m³, 1 ppm</td>
<td>TLV</td>
<td>Long-term value: 1.4 mg/m³, 1 ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1310-58-3 Potassium Hydroxide</td>
<td>REL</td>
<td>Ceiling limit value: 2 mg/m³</td>
<td>TLV</td>
<td>Ceiling limit value: 2 mg/m³</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></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:
  - Do not eat or drink while working.
  - Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing.
  - Wash hands before breaks and at the end of work.
  - Avoid contact with the eyes.
  - Avoid contact with the eyes and skin.

- Breathing equipment:
  - In case of brief exposure or low pollution use respiratory filter device.
  - In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- Protection of hands:
  - **Protective gloves**
    - 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 is based on consideration of the penetration times, rates of diffusion and the degradation.

- Material of gloves
  - The selection of 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 breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.
9 Physical and chemical properties

- **Eye protection:**
  - Tightly sealed goggles

- **Body protection:** Protective work clothing

<table>
<thead>
<tr>
<th>Information on basic physical and chemical properties</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Information</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appearance:</strong></td>
<td></td>
</tr>
<tr>
<td>Form: Gel</td>
<td></td>
</tr>
<tr>
<td>Color: Light Orange to Pink</td>
<td></td>
</tr>
<tr>
<td>Odor: Odorless</td>
<td></td>
</tr>
<tr>
<td>Odor threshold: Not determined.</td>
<td></td>
</tr>
<tr>
<td>pH-value at 20 °C: 6.5-8.5</td>
<td></td>
</tr>
<tr>
<td>Change in condition</td>
<td></td>
</tr>
<tr>
<td>Melting point/Melting range: Undetermined</td>
<td></td>
</tr>
<tr>
<td>Boiling point/Boiling range: Undetermined</td>
<td></td>
</tr>
<tr>
<td>Flash point: Not applicable</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gaseous): Not applicable.</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature: Not determined.</td>
<td></td>
</tr>
<tr>
<td>Auto igniting: Product is not selfigniting.</td>
<td></td>
</tr>
<tr>
<td>Danger of explosion: Product does not present an explosion hazard.</td>
<td></td>
</tr>
<tr>
<td>Explosion limits:</td>
<td></td>
</tr>
<tr>
<td>Lower: Not determined.</td>
<td></td>
</tr>
<tr>
<td>Upper: Not determined.</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure: Not determined.</td>
<td></td>
</tr>
<tr>
<td>Density at 20 °C: 1.24 g/cm³</td>
<td></td>
</tr>
<tr>
<td>Relative density: Not determined.</td>
<td></td>
</tr>
<tr>
<td>Vapor density: Not determined.</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate: Not determined.</td>
<td></td>
</tr>
<tr>
<td>Solubility in / Miscibility with Water: Fully miscible.</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water): Not determined.</td>
<td></td>
</tr>
<tr>
<td>Viscosity:</td>
<td></td>
</tr>
<tr>
<td>Dynamic: Not determined.</td>
<td></td>
</tr>
<tr>
<td>Kinematic: Not determined.</td>
<td></td>
</tr>
<tr>
<td>Solvent content:</td>
<td></td>
</tr>
<tr>
<td>Organic solvents: &lt;50 %</td>
<td></td>
</tr>
<tr>
<td>Water: &lt;80 %</td>
<td></td>
</tr>
<tr>
<td>VOC content: 0.00 %</td>
<td></td>
</tr>
<tr>
<td>0.0 g/l / 0.00 lb/gal</td>
<td></td>
</tr>
</tbody>
</table>
10. Stability and reactivity

- Reactivity: No further relevant information available.
- Chemical stability
- Thermal decomposition / conditions to be avoided: Decomposes when exposed to heat
- Possibility of hazardous reactions
  Contact with metals, metallic ions, alkalis, reducing agents and organic matter (such as alcohols or terpenes) may produce self-accelerated thermal decomposition.
  Reacts with various metals.
  Reacts with organic substances.
- Conditions to avoid
  pH Variations
  UV rays
  Contamination
- Incompatible materials:
  Heavy Metals
  Combustible Materials
  Reducing Agents
  Alkalis
  Organic materials
- Hazardous decomposition products: Oxygen

11. Toxicological information

- Information on toxicological effects
- Acute toxicity:
- LD/LC50 values that are relevant for classification:

<table>
<thead>
<tr>
<th>ATE (Acute Toxicity Estimate)</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalative LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE (Acute Toxicity Estimate)</td>
<td>3.181 mg/kg</td>
<td>&gt;37,594 mg/kg (rabbit)</td>
<td>&gt;0.498 mg/l</td>
</tr>
<tr>
<td>56-81-5 Glycerine</td>
<td>Oral LD50</td>
<td>7,750 mg/kg (Guinea pig)</td>
<td>4,100 mg/kg (mouse)</td>
</tr>
<tr>
<td>Dermal LC50 Fish</td>
<td>&gt;5,000 mg/l (Fish)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalative LC50/4 h</td>
<td>&gt;21,900 mg/kg (rat)</td>
<td>10,000 mg/kg (rabbit)</td>
<td>&gt;0.1425 mg/l (rat)</td>
</tr>
<tr>
<td>7722-84-1 Hydrogen Peroxide</td>
<td>Oral LC50 Fish</td>
<td>16.4 mg/l (Fish)</td>
<td></td>
</tr>
<tr>
<td>1310-58-3 Potassium Hydroxide</td>
<td>Oral LD50</td>
<td>274 mg/kg (rat)</td>
<td></td>
</tr>
</tbody>
</table>
Trade name: Opalescence™ Boost 35% Non-PF (Mixed)

<table>
<thead>
<tr>
<th>LC50 Fish</th>
<th>80 mg/l (Fish)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary irritant effect:</td>
<td></td>
</tr>
<tr>
<td>on the skin: No irritant effect.</td>
<td></td>
</tr>
<tr>
<td>on the eye: Strong irritant with the danger of severe eye injury.</td>
<td></td>
</tr>
<tr>
<td>Sensitization: No sensitizing effects known.</td>
<td></td>
</tr>
<tr>
<td>Additional toxicological information:</td>
<td></td>
</tr>
<tr>
<td>The product shows the following dangers according to internally approved calculation methods for preparations:</td>
<td></td>
</tr>
<tr>
<td>Harmful</td>
<td></td>
</tr>
<tr>
<td>Irritant</td>
<td></td>
</tr>
</tbody>
</table>

Carcinogenic categories

- IARC (International Agency for Research on Cancer)
  - 7722-84-1 Hydrogen Peroxide 3
  - 9003-01-4 Polyacrylic Acid 3

- 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

- Toxicity
  - Aquatic toxicity:
    - 56-81-5 Glycerine
      - EC50 >10,000 mg/l (Bacteria)
      - >10,000 mg/l (daphnia)
    - 7722-84-1 Hydrogen Peroxide
      - EC50 1.38 mg/l (Algae)
      - 2.4 mg/l (daphnia)

- Persistence and degradability: No further relevant information available.
- Behavior in environmental systems: No further relevant information available.
- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: 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.
    - Must not reach bodies of water or drainage ditch undiluted or unneutralized.
  - 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: Do not allow product to reach sewage system.
---

**Trade name:** Opalescence™ Boost 35% Non-PF (Mixed)

- **Uncleaned packagings:**
  - **Recommendation:** Disposal must be made according to official regulations.
  - **Recommended cleansing agent:** Water, if necessary with cleansing agents.

---

### 14 Transport information

<table>
<thead>
<tr>
<th>UN-Number</th>
<th>DOT, IMDG, IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN3264</td>
<td></td>
</tr>
</tbody>
</table>

- **UN proper shipping name**: Corrosive liquid, acidic, inorganic, n.o.s (Hydrogen peroxide, stabilized)
- **DOT**
  - **Class**: 8 Corrosive substances
  - **Label**: 8
- **IMDG**
  - **Class**: 8 Corrosive substances
  - **Label**: 8
- **IATA**
  - **Class**: 8 Corrosive substances
  - **Label**: 8

- **Packing group**: II
- **Environmental hazards**: Not applicable.

- **Special precautions for user**: Warning: Corrosive substances
  - **Danger code (Kemler):** 80
  - **EMS Number**: F-A,S-B
  - **Segregation groups**: Acids
  - **Stowage Category**: B
  - **Stowage Code**: SW2 Clear of living quarters.

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

---

(Contd. on page 10)
15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Sara
    - Section 355 (extremely hazardous substances):
      - 7722-84-1 Hydrogen Peroxide
    - Section 313 (Specific toxic chemical listings):
      - None of the ingredients is listed.
    - TSCA (Toxic Substances Control Act):
      - All components have the value ACTIVE.
  - Hazardous Air Pollutants
    - None of the ingredients is listed.
  - Proposition 65
    - None of the ingredients is listed.
  - 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.

- Carcinogenic categories
  - EPA (Environmental Protection Agency)
    - None of the ingredients is listed.
  - TLV (Threshold Limit Value established by ACGIH)
    - 7722-84-1 Hydrogen Peroxide A3
  - NIOSH-Ca (National Institute for Occupational Safety and Health)
    - None of the ingredients is listed.

- GHS label elements
  - Medical Devices are exempt from the labeling requirements of the Globally Harmonized System (GHS).
  - Hazard pictograms GHS05, GHS07
· Signal word Danger

· Hazard-determining components of labeling:
  Hydrogen Peroxide

· Hazard statements
  Harmful if swallowed or if inhaled.
  Causes serious eye damage.

· Precautionary statements
  Avoid breathing dust/fume/gas/mist/vapors/spray
  Wash thoroughly after handling.
  Do not eat, drink or smoke when using this product.
  Use only outdoors or in a well-ventilated area.
  Wear eye protection / face protection.
  If on skin: Wash with plenty of water.
  IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
  Continue rinsing.
  Immediately call a poison center/doctor.
  If skin irritation occurs: Get medical advice/attention.
  Take off contaminated clothing and wash it before reuse.
  Dispose of contents/container in accordance with local/regional/national/international regulations.

· Chemical safety assessment:
  Product contains high levels of hydrogen peroxide, which has a known toxicological profile. Product is only to be used by licensed dental professionals using the specified engineering controls.

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.

· Department issuing SDS: Regulatory Affairs
· Contact: Customer Service
· Date of preparation / last revision 09/30/2019 / -
· Abbreviations and acronyms:
  IMDG: International Maritime Code for Dangerous Goods
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  ACGIH: American Conference of Governmental Industrial Hygienists
  EINECS: European Inventory of Existing Commercial Chemical Substances
  ELINCS: European List of Notified Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  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
  OSHA: Occupational Safety & Health
  TLV: Threshold Limit Value
  PEL: Permissible Exposure Limit
  REL: Recommended Exposure Limit
  Acute Tox. 4: Acute toxicity – Category 4
  Eye Dam. 1: Serious eye damage/eye irritation – Category 1