1 Identification

· Product identifier
· Trade name: GRADIA SEPARATOR

· 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 Auxillary for 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 (Mon.-Fri. 8:00 AM-5:00 PM CST): +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.
  Eye Irrit. 2A H319 Causes serious eye irritation.
  STOT SE 3 H336 May cause drowsiness or dizziness.

· 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

· Signal word Danger

· Hazard-determining components of labeling:
  isopropyl alcohol
· Hazard statements
  Highly flammable liquid and vapor.

(Contd. on page 2)
Trade name: GRADIA SEPARATOR

Causes serious eye irritation.
May cause drowsiness or dizziness.

Precautionary statements
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
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 locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information:
22.5 % of the mixture consists of component(s) of unknown toxicity.

Classification system:
NFPA ratings (scale 0 - 4)

Health = 1
Fire = 3
Reactivity = 0

HMIS-ratings (scale 0 - 4)

Health = 1
Fire = 3
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>Chemical name</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0 isopropyl alcohol</td>
<td>60-80%</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: GRADIA SEPARATOR

- **After skin contact:**
  Rinse with warm water.
  If symptoms persist consult doctor.

- **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
    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:** 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.

- **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.
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.

· 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:

<table>
<thead>
<tr>
<th>Component</th>
<th>PEL Long-term value</th>
<th>REL Short-term value</th>
<th>TLV Short-term value</th>
<th>Long-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0 isopropyl alcohol</td>
<td>980 mg/m³, 400 ppm</td>
<td>1225 mg/m³, 500 ppm</td>
<td>984 mg/m³, 400 ppm</td>
<td>980 mg/m³, 400 ppm</td>
</tr>
</tbody>
</table>

· Ingredients with biological limit values:

<table>
<thead>
<tr>
<th>Component</th>
<th>BEI 40 mg/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium: urine</td>
<td>Time: end of shift at end of workweek</td>
</tr>
<tr>
<td>Parameter: Acetone (background, nonspecific)</td>
<td></td>
</tr>
</tbody>
</table>

Additional information: The lists that were valid during the creation were used as basis.
40.1.1

· 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

9 Physical and chemical properties

· Information on basic physical and chemical properties
· General Information
· Appearance:
  Form: 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: Undetermined.
· Flash point: 13 °C (55 °F)
· Flammability (solid, gaseous): Not applicable.
· Ignition temperature: 425 °C (797 °F)
· Decomposition temperature: Not determined.
· Auto igniting: Product is not selfigniting.
· Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits:
  Lower: 2.0 Vol %
  Upper: 12.0 Vol %
· Vapor pressure at 20 °C (68 °F): 43 hPa (32 mm Hg)
· Density: Not determined.
Trade name: GRADIA SEPARATOR

- Relative density: Not determined.
- Vapour density: Not determined.
- Evaporation rate: Not determined.
- Solubility in / Miscibility with Water: Insoluble.
- Partition coefficient (n-octanol/water): Not determined.
- Viscosity:
  - Dynamic: Not determined.
  - Kinematic: Not determined.
- Solvent content:
  - Organic solvents: 77.5%
  - VOC content: 77.5%
- 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.
- Hazardous decomposition products: No dangerous decomposition products known.

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: No irritant effect.
  - on the eye: Irritating effect.
- Sensitization: No sensitizing effects known.
- 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)
    - isopropyl alcohol: 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: 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 3 (Self-assessment): extremely hazardous for water
    Do not allow product to reach ground water, water course or sewage system, even in small quantities.
    Danger to drinking water if even extremely small quantities leak into the ground.
- 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:
  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 UN1219
- DOT, ADR, IMDG, IATA
- UN proper shipping name
  - DOT Isopropanol (Isopropyl alcohol) solution
  - ADR 1219 Isopropanol (Isopropyl alcohol) solution
  - IMDG, IATA ISOPROPYL ALCOHOL solution
### Transport hazard class(es)

- **DOT**
  - **Class**: 3 Flammable liquids
  - **Label**: 3

- **ADR**
  - **Class**: 3 (F1) Flammable liquids
  - **Label**: 3

- **IMDG, IATA**
  - **Class**: 3 Flammable liquids
  - **Label**: 3

- **Packing group**
  - DOT, ADR, IMDG, IATA: II

### Environmental hazards:
- **Marine pollutant**: No
- **Special precautions for user**: Warning: Flammable liquids
- **Danger code (Kemler)**: 33

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

### Transport/Additional information:

- **ADR**
  - **Excepted quantities (EQ)**: Code: E2
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 500 ml

- **IMDG**
  - **Limited quantities (LQ)**: 1L
  - **Excepted quantities (EQ)**: Code: E2
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 500 ml

- **UN "Model Regulation":** UN1219, Isopropanol (Isopropyl alcohol) solution, 3, II
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.
  - TLV (Threshold Limit Value established by ACGIH) isopropyl alcohol A4
  - 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

- Signal word Danger

- Hazard-determining components of labeling:
  - isopropyl alcohol

- Hazard statements
  - Highly flammable liquid and vapor.
  - Causes serious eye irritation.
  - May cause drowsiness or dizziness.

- Precautionary statements
  - Keep away from heat/sparks/open flames/hot surfaces. No smoking.
  - 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 locked up.
  - Dispose of contents/container in accordance with local/regional/national/international regulations.

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

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
04/29/2015 / -

### 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)  
- 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)  
- 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  
- Flam. Liq. 2: Flammable liquids, Hazard Category 2  
- Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A  
- STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3  

### 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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