1 Identification

· Product identifier
· Trade name: G-Premio BOND DCA

· 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
  Auxiliary for dental technology

· Details of the supplier of the safety data sheet
  Manufacturer/Supplier:
  GC America Inc.
  3737 W. 127th Street
  Alsip, IL 60803
  USA
  SDS.gcamerica@gc.dental
  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. 2A H319 Causes serious eye irritation.

· 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
  Exempt from labeling – medical devices and drugs do not require labeling according to HCS 2012.
  The product is classified and labeled according to the Globally Harmonized System (GHS).
· Hazard pictograms

  · Signal word Danger
  · Hazard statements
    Highly flammable liquid and vapor.
    Causes skin irritation.
    Causes serious eye irritation.
Trade name: G-Premio BOND DCA

· Precautionary statements
  Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  Wear protective gloves/protective clothing/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.

· Additional information:
  14 % of the mixture consists of component(s) of unknown toxicity.

· 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:
  CAS: 64-17-5 ethyl alcohol 25 – < 50%
  catalyst** 5 – < 10%

· 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.
  · After skin contact:
    Immediately wash with water and soap and rinse thoroughly.
    Rinse with warm water.
    Seek medical treatment.
    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.
5 Fire-fighting measures

· Extinguishing media
  · Suitable extinguishing agents:
    CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
    Use fire fighting measures that suit the environment.
  · For safety reasons unsuitable extinguishing agents: Water with full jet
  · 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).
  excerpt from Introduction to PAC Table 2 – PAC Rev. 29 – May 2016

· PAC-1:
  CAS: 64-17-5  ethyl alcohol  1,800 ppm
**Trade name:** G-Premio BOND DCA

### 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.
    - Use caution when opening. The product is a highly flammable liquid and vapor; keep away from heat, hot surfaces, sparks, flames and other ignitions sources. Use with adequate ventilation. Do not ingest or breathe vapor. Personal Protective Equipment (PPE) such as gloves and safety eyewear are always to be worn. Check bottle with liquid before using. Make sure that upon removal of cap, the bottle opening has no obstructions. Some bottles may contain an insert (as a seal). The insert must be in the cap and not obstructing opening.
    - In case of contact, flush eyes with water for at least 15 minutes. Get prompt medical attention. If overcome by vapor, move to fresh air. If breathing is difficult, administer oxygen and seek medical attention. If swallowed, dilute by giving water to drink and seek medical attention. In case of contact with skin wash thoroughly with soap and water. Store securely. Store in a well ventilated place. Keep cool. Dispose of all waste according to local regulations.
  - **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 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.
    - 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.

(Contd. on page 5)
Trade name: G-Premio BOND DCA

At this time, the remaining constituent has no known exposure limits.

**CAS: 64-17-5 ethyl alcohol**

<table>
<thead>
<tr>
<th></th>
<th>Long-term value: 1900 mg/m³, 1000 ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL</td>
<td>Long-term value: 1900 mg/m³, 1000 ppm</td>
</tr>
<tr>
<td>REL</td>
<td>Long-term value: 1900 mg/m³, 1000 ppm</td>
</tr>
<tr>
<td>TLV</td>
<td>Short-term value: 1880 mg/m³, 1000 ppm</td>
</tr>
</tbody>
</table>

- **Regulatory information**
  - PEL: Guide to Occupational Exposure Values (OSHA PELs)
  - REL: Guide to Occupational Exposure Values (NIOSH RELs)
  - TLV: Guide to Occupational Exposure Values (ACGIH)

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

- **Exposure controls**
  - **Personal protective 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**:
  - Safety glasses

**9 Physical and chemical properties**

- **Information on basic physical and chemical properties**
  - **General Information**
    - **Appearance**:
      - Form: Liquid
## 49.4.19.1

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
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</tr>
<tr>
<td>Odor</td>
<td>Alcohol-like</td>
</tr>
<tr>
<td>Odor threshold</td>
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<tr>
<td>pH-value at 20 °C (68 °F)</td>
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<tr>
<td>Change in condition</td>
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</tr>
<tr>
<td>Melting point/Melting range</td>
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<td>Boiling point/Boiling range</td>
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<tr>
<td>Flash point</td>
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<tr>
<td>Flammability (solid, gaseous)</td>
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<tr>
<td>Ignition temperature</td>
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<tr>
<td>Decomposition temperature</td>
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<tr>
<td>Auto igniting</td>
<td>Product is not self-igniting</td>
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<tr>
<td>Danger of explosion</td>
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</tr>
<tr>
<td>Explosion limits</td>
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</tr>
<tr>
<td>Lower</td>
<td>3.5 Vol %</td>
</tr>
<tr>
<td>Upper</td>
<td>15 Vol %</td>
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<tr>
<td>Vapor pressure</td>
<td>Not determined</td>
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<tr>
<td>Density at 20 °C (68 °F)</td>
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<tr>
<td>Relative density</td>
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<tr>
<td>Vapor density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Evaporation rate</td>
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</tr>
<tr>
<td>Solubility in / Miscibility with</td>
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<tr>
<td>Water</td>
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<tr>
<td>Partition coefficient (n-octanol/water)</td>
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<tr>
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<tr>
<td>Dynamic</td>
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</tr>
<tr>
<td>Kinematic</td>
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<tr>
<td>Solvent content</td>
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<td>Organic solvents</td>
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<tr>
<td>Water</td>
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<tr>
<td>VOC content</td>
<td>30.00 %</td>
</tr>
<tr>
<td>Solids content</td>
<td>0.0 %</td>
</tr>
<tr>
<td>Other information</td>
<td>No further relevant information available</td>
</tr>
</tbody>
</table>

### 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.
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: 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)
    ethyl alcohol 1
  · 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.
Trade name: G-Premio BOND DCA

- **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 (German regulation, AwSV) (Self-assessment): clearly hazardous to 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.
- **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.
  - **Recommended cleansing agent**: Water, if necessary with cleansing agents.

---

**14 Transport information**

<table>
<thead>
<tr>
<th>UN-Number</th>
<th>DOT, ADR, IMDG, IATA</th>
<th>UN1170</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UN proper shipping name</strong></td>
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<td>Ethanol solutions</td>
</tr>
<tr>
<td>DOT</td>
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<td>1170 ETHANOL SOLUTION</td>
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<tr>
<td>ADR</td>
<td></td>
<td>ETHANOL SOLUTION</td>
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<tr>
<td>IMDG, IATA</td>
<td></td>
<td></td>
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<tr>
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<tr>
<td>DOT</td>
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<td><img src="image" alt="Flammable" /></td>
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<td>3 Flammable liquids</td>
</tr>
<tr>
<td>Class</td>
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<tr>
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<td>ADR</td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image" alt="Flammable" /></td>
<td></td>
<td>3 (F1) Flammable liquids</td>
</tr>
</tbody>
</table>
Trade name: G-Premio BOND DCA

| · Label | 3 |
| · IMDG, IATA | |

| · Class | 3 Flammable liquids |
| · Label | 3 |

| · Packing group | |
| · DOT, ADR, IMDG, IATA | II |
| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Warning: Flammable liquids |
| · Danger code (Kemler): | 30 |
| · EMS Number: | F-E,S-D |
| · Stowage Category | A |

| · 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": | UN 1170 ETHANOL 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): | 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. |
Trade name: G-Premio BOND DCA

· 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:
  The substance ethyl alcohol, also known as ethanol, is on California's Proposition 65 list of "Chemicals Known to the State To Cause Cancer or Reproductive Toxicity" as a developmental toxicant but as "ethyl alcohol in alcoholic beverages." GC products are not consumable alcoholic beverages.
  ethyl alcohol

· Carcinogenic categories

· EPA (Environmental Protection Agency)
  None of the ingredients is listed.

· EPA carcinogenic categories' legend:
  A: human carcinogen (1986)
  C: possible human carcinogen (1986)
  D: not classifiable as to human carcinogenicity (1986)
  E: evidence of non-carcinogenicity for humans (1986)
  CaH: carcinogenic to humans
  CBD: carcinogenic potential cannot be determined
  I: data are inadequate for an assessment of human carcinogenic potential
  II: inadequate information to assess carcinogenic potential
  K/L: known/likely human carcinogen
  L: likely to be carcinogenic to humans
  NL: not likely to be carcinogenic to humans
  S: suggestive evidence of carcinogenicity, but not sufficient to assess human carcinogenic potential
  SC: suggestive evidence of carcinogenic potential

· TLV (Threshold Limit Value established by ACGIH)
  ethyl alcohol A3

· 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
  Exempt from labeling – medical devices and drugs do not require labeling according to HCS 2012.
  The product is classified and labeled according to the Globally Harmonized System (GHS).
Trade name: G-Premio BOND DCA

· Hazard pictograms
  ![Hazard pictograms]

· Signal word Danger

· Hazard statements
  Highly flammable liquid and vapor.
  Causes skin irritation.
  Causes serious eye irritation.

· Precautionary statements
  Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  Wear protective gloves/protective clothing/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.

· 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@gc.dental
· Date of preparation / last revision 10/17/2019 / 1
· 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)
  NIOSH: National Institute for Occupational Safety and Health (USA)
  TSCA: Toxic Substances Control Act (USA)
  AwSV: Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on facilities for handling
  substances that are hazardous to water) (Germany)
  NOEC: No Observed Effect Concentration
  ADR: Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement
  concerning the International Carriage of Dangerous Goods by Road)
  IMDG Code: International Maritime Dangerous Goods Code
  DOT: Department of Transportation (USA)
  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
Trade name: G-Premio BOND DCA

vPvB: very Persistent and very Bioaccumulative
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. 2A: Serious eye damage/eye irritation – Category 2A

Sources
• Manufacturers’ MSDSs/SDSs
• OSHA (https://www.osha.gov/dts/chemicalsampling/toc/chmcas.html)
• 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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