1 Identification

· **Product identifier**

· **Trade name:** GC Initial™ Ti Bonder Powder

· **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 manufacture of dental prosthesis

· **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**
  The product is not classified according to the Globally Harmonized System (GHS).

· **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** Void
  · **Hazard pictograms** Void
  · **Signal word** Void
  · **Hazard statements** Void

· **Additional information:**
  100 % of the mixture consists of component(s) of unknown toxicity.

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

  ![NFPA ratings]
  Health = 0
  Fire = 0
  Reactivity = 0

(Contd. on page 2)
Safety Data Sheet  
acc. to OSHA HCS 29 CFR 1910.1200

Printing date 02/24/2015  
Reviewed on 02/23/2015

Trade name: GC Initial™ Ti Bonder Powder

- **Health**: 0  
- **Fire**: 0  
- **Reactivity**: 0

### 3 Composition/information on ingredients
- **Chemical characterization**: Mixtures  
- **Description**: Mixture of the substances listed below with nonhazardous additions.  
- **Dangerous components**: Void  
- **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**:  
  No special measures required.  
  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**:  
  Rinse with warm water.  
  If symptoms persist consult doctor.  
- **After eye contact**:  
  Rinse opened eye for several minutes under running water. If symptoms persist, 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, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.  
  Use fire fighting measures that suit the environment.
Trade name: GC Initial™ Ti Bonder Powder

- 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.
- 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.
- 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:
  Pick up mechanically.
  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.
  Prevent formation of dust.
  Any deposit of dust which cannot be avoided must be regularly removed.
- Information about protection against explosions and fires:
  Dust can combine with air to form an explosive mixture.
- 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.
  - 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 product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
  - Additional information: The lists that were valid during the creation were used as basis.
### 9 Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</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</td>
<td>Powder</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>pH-value</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Change in condition</strong></td>
<td></td>
</tr>
<tr>
<td>Melting point/Melting range</td>
<td>Undetermined.</td>
</tr>
<tr>
<td>Boiling point/Boiling range</td>
<td>Undetermined.</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Flammability (solid, gaseous)</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Ignition temperature</strong></td>
<td>Undetermined.</td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Auto igniting</strong></td>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td><strong>Danger of explosion</strong></td>
<td>Product does not present an explosion hazard.</td>
</tr>
<tr>
<td><strong>Explosion limits</strong></td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Upper</td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Vapor pressure</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Density at 20 °C (68 °F)</strong></td>
<td>8.0678 g/cm³ (67.326 lbs/gal)</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Vapour density</strong></td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>
40.1.1 Evaporation rate Not applicable.

Solubility in / Miscibility with Water: Insoluble.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:
  Dynamic: Not applicable.
  Kinematic: Not applicable.

Solvent content:
  Organic solvents: 0.0 %

Solids content: 100.0 %

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: No irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:
The product is not subject to classification according to internally approved calculation methods for preparations:

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.

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.
Trade name: GC Initial™ Ti Bonder Powder

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.

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: Smaller quantities can be disposed of with household waste.

- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  DOT, ADR, ADN, IMDG, IATA: Void

- UN proper shipping name
  DOT, ADR, ADN, IMDG, IATA: Void

- Transport hazard class(es)
  DOT, ADR, ADN, IMDG, IATA: Void
  Class: Void

- Packing group
  DOT, ADR, IMDG, IATA: Void

- Environmental hazards:
  Marine pollutant: No

- Special precautions for user: Not applicable.
Trade name: GC Initial™ Ti Bonder Powder

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 ingredient is listed.
  - Section 313 (Specific toxic chemical listings):
    None of the ingredients is listed.
  - TSCA (Toxic Substances Control Act):
    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)
  None of the ingredients is listed.
- NIOSH-Ca (National Institute for Occupational Safety and Health)
  None of the ingredients is listed.
- GHS label elements Void
- Hazard pictograms Void
- Signal word Void
- Hazard statements Void
- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

- Department issuing MSDS: Regulatory Affairs
- Contact:
  Regulatory Affairs
  Telephone No. +1 (708) 597-0900
  sds@gcamerica.com
- Date of preparation / last revision 02/24/2015 / -
- 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
  ADN: Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways)
  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
Trade name: GC Initial™ Ti Bonder Powder

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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative

Sources
- Manufacturers’ MSDSs/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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