SECTION 1 - IDENTIFICATION

Product Name: TRÈS BN Boron Nitride Powder
Product Code: PUHPxxxxx (Where x = any digit 0 – 9, OR any letter A – Z, OR blank.), TBN16
MSDS Manufacturer Number: 100
Product Use/Restriction: Additive in cosmetics and skin care formulations. Not intended for food and drug use.
Manufacturer Name: Saint-Gobain Advanced Ceramics Corporation
Address: Boron Nitride 168 Creekside Drive Amherst, NY 14228-2027
General Phone Number: (716) 691-2000
General Fax Number: (716) 691-2090
Emergency Phone Number: 1-800-424-9300 (CHEMTREC)
CHEMTREC: For emergencies in the US, call CHEMTREC: 800-424-9300
Canutec: In Canada, call CANUTEC: (613) 996-6666 (call collect)
Website: www.bn.saint-gobain.com
MSDS Creation Date: July 13, 2009
MSDS Revision Date: June 15, 2013

SECTION 2 - HAZARD(S) IDENTIFICATION

GHS Class: GHS Category 5
Emergency Overview: CAUTION! Exposure to dust may be irritating to eyes, nose and throat.
Route of Exposure: Eyes. Skin. Inhalation. Ingestion.
Potential Health Effects:
Eye: May cause eye irritation.
Skin: May cause skin irritation.
Inhalation: Inhalation of dusts from this product may cause temporary mechanical irritation of the nose, throat and respiratory tract.
Ingestion: Ingestion can cause nausea, vomiting, diarrhea and gastrointestinal irritation.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS#</th>
<th>Ingredient Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boron Nitride</td>
<td>10043-11-5</td>
<td>97-100 %</td>
</tr>
<tr>
<td>Boron Oxide</td>
<td>1301-86-2</td>
<td>0-0.2 %</td>
</tr>
</tbody>
</table>

SECTION 4 - FIRST AID MEASURES

Eye Contact: Immediately flush eyes with plenty of water for 15 to 20 minutes. Get medical attention, if irritation or symptoms of overexposure persists.
Skin Contact: Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.
Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.
Ingestion: If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.
SECTION 5 - FIRE FIGHTING MEASURES

Flammable Properties: Non Flammable.
Flash Point: No information.
Flash Point Method: Not applicable.
Auto Ignition Temperature: No information.
Lower Flammable/Explosive Limit: Not applicable.
Upper Flammable/Explosive Limit: Not applicable.
Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Protective Equipment: As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.

Hazardous Combustion Byproducts: Decomposition of this product may yield oxides of boron and nitrogen. Decomposition of boron nitride occurs at 2204 °C (4000 °F).

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personnel Precautions: Use proper personal protective equipment as listed in section 8.
Environmental Precautions: Avoid runoff into storm sewers, ditches, and waterways.
Methods for containment: This material will settle out of the air.
Methods for cleanup: Shovel or sweep up for re-use or disposal. Avoid creating dusty conditions. Provide ventilation. Clean up spills immediately observing precautions in the protective equipment section.

SECTION 7 - HANDLING and STORAGE

Handling: For industrial use only. Handle with care. Avoid dust formation. Do not breathe dust or spray mist.
Storage: Store in a cool, dry, well ventilated area away from sources of heat and incompatible materials. Keep container tightly closed when not in use.
Hygiene Practices: Wash thoroughly after handling.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION - EXPOSURE GUIDELINES

Engineering Controls: Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
Eye/Face Protection: Safety glasses with side-shields.
Skin Protection Description: Normal work clothing (long sleeved shirt, long pants, and gloves) is recommended.
Hand Protection Description: Use impervious gloves.
Respiratory Protection: If ventilation is not sufficient to effectively prevent buildup of dusts, appropriate NIOSH respiratory protection must be provided. Consult the NIOSH web site (http://www.cdc.gov/niosh/npptl/topics/respirators/disp_part) for a list of dust respirator types and approved suppliers.
Other Protective: Follow good industrial hygiene practices when handling this material.

EXPOSURE GUIDELINES

**Boron Oxide**

- **Guideline ACGIH:** TLV-TWA: 10 mg/m³
- **Guideline OSHA:** PEL-TWA: 15 mg/m³ Total particulate/dust (T)
- **Guideline NIOSH:** 2000 mg/m³
- **British Columbia Canada:** OEL-TWA: 10 mg/m³
- **Quebec Canada:** VEMP-TWA: 10 mg/m³

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES
Physical State: Powder.
Color: White to off-white.
Odor: Little to no odor; Slight ammonia odor.
Boiling Point: Not determined.
Melting Point: Not determined.
Specific Gravity: 1.8 - 2.1
Solubility: Insoluble in water.
Vapor Density: Not applicable.
Vapor Pressure: Not applicable.
Percent Volatile: Not applicable.
Evaporation Rate: Not applicable.
Evaporation Point: Not applicable.
pH: Not applicable.
Molecular Weight: Mixture.
Viscosity: Not applicable.
Flash Point: No information.
Flash Point Method: Not applicable.
Auto Ignition Temperature: No information.

SECTION 10 - STABILITY and REACTIVITY

Chemical Stability: Stable under normal conditions.
Hazardous Polymerization: Will not occur.
Conditions to Avoid: Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions.
Incompatible Materials: This product may react with strong acids or oxidizing agents.
Special Decomposition Products: Decomposition of this product may yield oxides of boron and nitrogen. Decomposition of boron nitride occurs at 2204 °C (4000 °F).

SECTION 11 - TOXICOLOGICAL INFORMATION

**Boron Nitride:**
Skin: Administration onto the skin - Rabbit LD₅₀: >20 mL/kg [Details of toxic effects not reported other than lethal dose value]

**Boron Oxide:**
Eye: Eye - Rabbit Standard Draize test.: 50 mg
Skin: Administration onto the skin - Rabbit Standard Draize test.: 1 gm
Ingestion: Oral - Rat LD₅₀: 3150 mg/kg [Details of toxic effects not reported other than lethal dose value]; Oral - Mouse LD₅₀: 3163 mg/kg [Details of toxic effects not reported other than lethal dose value]

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: No ecotoxicity data was found for the product.
Environmental Fate: No environmental information found for this product.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose of in accordance with Local, State, Federal and Provincial regulations.

SECTION 14 - TRANSPORT INFORMATION

DOT Shipping Name: Not Regulated.
DOT UN Number: Not Regulated.
IATA: Not Regulated.
SECTION 15 - REGULATORY INFORMATION

Risk Phrases: R36/37/38 - Irritating to eyes, respiratory system and skin.

Safety Phrase: S22 - Do not breathe dust.

S37/39 - Wear suitable gloves and eye/face protection.

**Boron Nitride:**
- TSCA Inventory Status: Listed
- EINECS Number: 233-136-6
- Canada DSL: Listed
- South Korea KECL: Listed: KECI Number - KE-03535
- Australia AICS: Listed: Assessed by NICNAS: No

**Boron Oxide:**
- TSCA Inventory Status: Listed
- EINECS Number: 215-125-8
- Massachussetts: Listed
- Pennsylvania: Listed
- Canada DSL: Listed
- Canada IDL: Identified under the Canadian Hazardous Products Act Ingredient Disclosure List: 0.1% (228)
- South Korea KECL: Listed: KECI Number - KE-09919
- Australia AICS: Listed: Assessed by NICNAS: No

SECTION 16 - ADDITIONAL INFORMATION

HMIS Health Hazard: 1
HMIS Fire Hazard: 1
HMIS Reactivity: 0
HMIS Personal Protection: X
MSDS Creation Date: July 13, 2009
MSDS Revision Date: June 15, 2015