# Material Safety Data Sheet

**Material Name: Tres BN® Boron Nitride Cosmetic Powders** **ID: MSDS-100B**
**Issue Date: 01/12/01**

## * * * Section 1 - Chemical Product and Company Identification * * *

**Part Number:** UHP838
**Chemical Name:** Boron Nitride, Micronized Titanium Dioxide, and Poly(dimethylsiloxane)
**Product Use:** Additive in cosmetics and skin care formulations
**Manufacturer Information**

Saint-Gobain Advanced Ceramics Corporation
Boron Nitride
168 Creekside Drive
Amherst, NY 14228

Phone: (716) 691-2000
Fax: (716) 691-2090
Emergency # 1-800-424-9300 (CHEMTREC)

NOTE: Emergency telephone numbers are to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to customer service.

## * * * Section 2 - Composition / Information on Ingredients * * *

| CAS # | Component | Percent |
|---|---|---|
| 10043-11-5 | Boron nitride (BN) | 1-95 |
| 13463-67-7 | Titanium dioxide | 0-80 |
| 107-46-0 | Hexamethyldisiloxane | 0-5 |

**Component Information/Information on Non-Hazardous Components**

Exact composition of products will vary with each individual product. All ingredients listed above may not always be included in final product.

## * * * Section 3 - Hazards Identification * * *

**Emergency Overview**

This is a non-flammable, non-reactive solid material. It is supplied in the form of an odorless, white powder. Exposure to dust may be irritating to eyes, nose and throat. Product may form explosive dust/air mixtures if high concentration of product dust is suspended in air. If heated over 300 degrees F, toxic and irritating formaldehyde vapors may be released.

**Potential Health Effects: Eyes**

Dust or powder may irritate eye tissue. Vapors released during thermal processing may cause eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

**Potential Health Effects: Skin**

Dust or powder may irritate the skin. Vapors released during thermal processing may cause skin irritation.

**Potential Health Effects: Ingestion**

Ingestion of this product may cause nausea, vomiting and diarrhea.

**Potential Health Effects: Inhalation**

This product contains polysiloxane compounds which may generate formaldehyde vapors when exposed to temperatures exceeding 300 degrees F in the presence of air. Formaldehyde is a potential cancer hazard, causes irritation and sensitization of the skin and respiratory system, causes eye and throat irritation and is acutely toxic.

**HMIS Ratings: Health:** 1 **Fire:** 1 **Reactivity:** 0 **Pers. Prot.:** Safety glasses, gloves
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

## * * * Section 4 - First Aid Measures * * *

**First Aid: Eyes**

Flush immediately with water for at least 15 minutes. Do not rub eyes. If irritation persists get medical attention.

**First Aid: Skin**

For skin contact, wash immediately with soap and water. If irritation persists, get medical attention.

**First Aid: Ingestion**

If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting.

**First Aid: Inhalation**

If gas/fume/vapor/dust/mist from the material is inhaled, remove the affected person immediately to fresh air. If respiratory irritation occurs, if breathing becomes difficult, or if other symptoms develop, seek medical attention immediately.

**First Aid: Notes to Physician**

None.

## * * * Section 5 - Fire Fighting Measures * * *

**Flash Point:** Not available
**Method Used:** Not available
**Upper Flammable Limit (UFL):** Not available
**Lower Flammable Limit (LFL):** Not available
**Auto Ignition:** Not available
**Flammability Classification:** Non-flammable
**Rate of Burning:** Not available

**General Fire Hazards**

This material is not expected to be a fire hazard, however, high concentration of airborne dust may form explosive mixture with air.

**Hazardous Combustion Products**

Decomposition of this product may yield oxides of boron and nitrogen. Polysiloxane compounds may release silicates and formaldehyde upon decomposition.

**Extinguishing Media**

Use methods for the surrounding fire.

**Fire Fighting Equipment/Instructions**

Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

**NFPA Ratings: Health:**1**Fire:**1**Reactivity:**0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

## * * * Section 6 - Accidental Release Measures * * *

**Containment Procedures**

None necessary.

**Clean-Up Procedures**

Sweep up or gather material and place in appropriate container for disposal.

**Evacuation Procedures**

None necessary.

**Special Procedures**

Avoid inhalation of dust from the spilled material. Follow all Local, State, Federal and Provincial regulations for disposal.

## * * * Section 7 - Handling and Storage * * *

**Handling Procedures**

As with all chemicals, good industrial hygiene practices should be followed when handling this material. Special care must be taken to avoid inhalation exposure when using this product at high temperatures (above 300 degrees F). Wash thoroughly after handling. Use this product with adequate ventilation. Not for food and drug use.

**Storage Procedures**

Store in a cool, dry area away from moisture and excessive heat. Store in original containers away from incompatibles.

## * * * Section 8 - Exposure Controls / Personal Protection * * *

**Exposure Guidelines**

**A: General Product Information**

Keep formation of airborne dusts to a minimum. If product is heated to decomposition, irritating formaldehyde vapors may be released. Vapor concentrations should be monitored and controlled in accordance with 29 CFR 1910.1048.

**B: Component Exposure Limits**

**Titanium dioxide (13463-67-7)**

ACGIH: 10 mg/m3 TWA
OSHA: total dust: 10 mg/m3 TWA

**C: Exposure Limits for Chemicals which may be Generated During Processing:**

**Formaldehyde (50-00-0)**

ACGIH: C 0.3 ppm
OSHA: 0.75 ppm TWA PEL; 2 ppm STEL; 0.5 ppm TWA action level; Irritant and potential cancer hazard (29 CFR 1910.1048)

**Engineering Controls**

Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing.

**PERSONAL PROTECTIVE EQUIPMENT**

**Personal Protective Equipment: Eyes/Face**

Wear safety glasses; chemical goggles for fumes which may arise from thermal processing.

**Personal Protective Equipment: Skin**

Normal work clothing (long sleeved shirts and long pants) is recommended. Use impervious gloves.

**Personal Protective Equipment: Respiratory**

When dusts or thermal processing fumes are generated and ventilation is not sufficient to effectively remove them, appropriate NIOSH/MSHA approved respiratory protection must be provided.

**Personal Protective Equipment: General**

In areas where thermal processing occurs, levels of hazardous decomposition products, particularly formaldehyde, should be monitored and appropriate workplace exposure standards enforced.

## * * * Section 9 - Physical & Chemical Properties * * *

| | | | |
|---|---|---|---|
| **Appearance:** | White powder | **Odor:** | Odorless |
| **Physical State:** | Solid | **pH:** | Not available |
| **Vapor Pressure:** | Not applicable | **Vapor Density:** | Not applicable |
| **Boiling Point:** | Not applicable | **Melting Point:** | Not applicable |
| **Solubility (H2O):** | Insoluble | **Specific Gravity:** | Not available |
| **Evaporation Rate:** | Not applicable | **Viscosity:** | Not applicable |
| **Percent Volatile:** | Not applicable | **Molecular Weight:** | Mixture |

## * * * Section 10 - Chemical Stability & Reactivity Information * * *

**Chemical Stability**

Stable under normal conditions.

**Chemical Stability: Conditions to Avoid**

Avoid excessive heat and ignition sources.

**Incompatibility**

This product may react with strong acids or oxidizing agents, aluminum, calcium, lithium, magnesium, potassium, sodium, and zinc.

**Hazardous Decomposition**

Thermal decomposition products may include oxides of boron and nitrogen. Decomposition of boron nitride occurs at 2204 C (4000 F). Upon decomposition polysiloxanes may release silicates and formaldehyde.

**Hazardous Polymerization**

Will not occur.

## * * * Section 11 - Toxicological Information * * *

**Acute and Chronic Toxicity**

**A: General Product Information**

This product is considered a nuisance dust. Excessive airborne concentrations of nuisance dusts may cause irritation to skin or mucous membranes by chemical or mechanical action. Asthma and chronic respiratory conditions may be aggravated by exposure to this product. Exposure to boron nitride has not been shown to result in boron poisoning. Under normal operating conditions or thermal decomposition, boron nitride has not been shown to liberate free boron.

**B: Component Analysis - LD50/LC50**

**Hexamethyldisiloxane (107-46-0)**

Dermal LD50 Rabbit : 16 mL/kg

**Carcinogenicity**

**A: General Product Information**

No information available.

**B: Component Carcinogenicity**

**Titanium dioxide (13463-67-7)**

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Monograph 47, 1989 (Group 3 (not classifiable))

**Epidemiology**

No information available.

**Neurotoxicity**

No information available.

**Mutagenicity**

No information available.

**Teratogenicity**

No information available.

## * * * Section 12 - Ecological Information * * *

**Ecotoxicity**

**A: General Product Information**

No information available.

**B: Component Analysis - Ecotoxicity - Aquatic Toxicity**

No ecotoxicity data are available for this product's components.

**Environmental Fate**

No information available.

## * * * Section 13 - Disposal Considerations * * *

**US EPA Waste Number & Descriptions**

**A: General Product Information**

Wastes must be tested using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

**B: Component Waste Numbers**

No EPA Waste Numbers are applicable for this product's components.

**Disposal Instructions**

Waste must be handled in accordance with all federal, state, provincial, and local regulations.

## * * * Section 14 - Transportation Information * * *

**US DOT Information**

**Shipping Name:** Not regulated as dangerous goods.
**Additional Info.:** None.

**International Transportation Regulations**

No additional information available.

## * * * Section 15 - Regulatory Information * * *

**US Federal Regulations**

**A: General Product Information**

No information available.

**B: Component Analysis**

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

**State Regulations**

**A: General Product Information**

Other state regulations may apply. Check individual state requirements.

**B: Component Analysis - State**

The following components appear on one or more of the following state hazardous substances lists:

| Component | CAS # | CA | FL | MA | MN | NJ | PA |
|---|---|---|---|---|---|---|---|
| Titanium dioxide | 13463-67-7 | No | No | Yes | Yes | Yes | Yes |

**Other Regulations**

**A: General Product Information**

No additional information available.

**B: Component Analysis - Inventory**

| Component | CAS # | TSCA | DSL | EINECS |
|---|---|---|---|---|
| Boron nitride (BN) | 10043-11-5 | Yes | Yes | Yes |
| Titanium dioxide | 13463-67-7 | Yes | Yes | Yes |
| Hexamethyldisiloxane | 107-46-0 | Yes | Yes | Yes |

**C: Component Analysis - WHMIS IDL**

No components are listed in the WHMIS IDL.

## * * * Section 16 - Other Information * * *

**Other Information**

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.

**Key/Legend**

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration., NJTSR = New Jersey Trade Secret Registry.


**Contact:** Technical Service

**Contact Phone:** (716) 691-2052


This is the end of MSDS # MSDS-100B