

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA
GHS

Printing date: 02.02.2016

Revision: 02.02.2016

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

- **1.1 Product identifier**
- **Trade name:** Denstone®-57, Denstone®-2000, Denstone® deltaP®, NGBT, Pentaring Bed Topping Media, Ceramic Support Media, Proware™ Materials
- **Other product identifiers:** Bed Support; Porcelain; Stoneware
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the mixture:** Catalyst Support, Heat Sink Media
- **Uses advised against:** No further relevant information available.
- **1.3 Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Saint-Gobain NorPro
3840 Fishcreek Road
Stow, Ohio 44224
(330) 677-3598
- **1.4 Emergency telephone number:**
CHEMTREC
1-800-424-9300 (US/Canada)
+01 703-527-3887 (International)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
The product is not classified as hazardous according to OSHA GHS regulations within the United States.
The product is not classified as hazardous according to the CLP regulation.
- **Additional information:** Adverse health effects are not reasonably expected from normal use of product.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
This product does not have a classification according to the CLP regulation.
The product is not classified as hazardous according to OSHA GHS regulations within the United States.
- **Hazard pictograms** Not Regulated
- **Signal word** Not Regulated
- **Hazard-determining components of labelling:** None.
- **Hazard statements** Not Regulated
- **Precautionary statements** Not Regulated.
- **Additional information:** Safety data sheet available on request.
- **2.3 Other hazards** There are no other hazards not otherwise classified that have been identified.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

(Cont'd. on page 2)

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA
GHS

Printing date: 02.02.2016

Revision: 02.02.2016

Trade name: Denstone®-57, Denstone®-2000, Denstone® deltaP®, NGBT, Pentaring Bed Topping Media, Ceramic Support Media, Proware™ Materials

· **vPvB:** Not applicable.

(Cont'd. from page 1)

SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

· Components:

| | | | |
|-------------------------------------|-----------------|---|--------|
| CAS: 7631-86-9 EINECS: 231-545-4 | silicon dioxide | | 45-65% |
| CAS: 1344-28-1 EINECS: 215-691-6 | aluminium oxide | substance with a Community workplace exposure limit | 15-35% |
| CAS: 14808-60-7 | quartz | substance with a Community workplace exposure limit | 0-10% |

· Additional information:

For the listed ingredient(s), the identity and exact percentages are being withheld as a trade secret.

For the wording of the listed Hazard Statements refer to section 16.

Non-classification as a carcinogen is based on non-inhalable form of product. IARC listings for quartz note that substance must be respirable.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· After inhalation:

Unlikely route of exposure.

Supply fresh air; consult doctor in case of complaints.

· After skin contact:

Brush off loose particles from skin.

Immediately rinse with water.

If skin irritation is experienced, consult a doctor.

· After eye contact:

Remove contact lenses if worn.

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.

Do not induce vomiting; call for medical help immediately.

· 4.2 Most important symptoms and effects, both acute and delayed

Breathing difficulty

Coughing

Nausea in case of ingestion.

May cause gastro-intestinal irritation if ingested.

· 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

(Cont'd. on page 3)

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA
GHS

Printing date: 02.02.2016

Revision: 02.02.2016

Trade name: Denstone®-57, Denstone®-2000, Denstone® deltaP®, NGBT, Pentaring Bed Topping Media, Ceramic Support Media, Proware™ Materials

(Cont'd. from page 2)

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
The product is not flammable.
Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** None.
- **5.2 Special hazards arising from the substance or mixture**
No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Avoid formation of dust.
Do not breathe dust.
- **6.2 Environmental precautions** Avoid release to the environment.
- **6.3 Methods and material for containment and cleaning up**
Pick up mechanically.
Dispose of the material collected according to regulations.
Send for recovery or disposal in suitable receptacles.
- **6.4 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.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Use only in well ventilated areas.
Prevent formation of dust.
Avoid breathing dust.
Any unavoidable deposit of dust must be regularly removed.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** None.

(Cont'd. on page 4)

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA
GHS

Printing date: 02.02.2016

Revision: 02.02.2016

Trade name: Denstone®-57, Denstone®-2000, Denstone® deltaP®, NGBT, Pentaring Bed Topping Media, Ceramic Support Media, Proware™ Materials

(Cont'd. from page 3)

- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

- **Ingredients with limit values that require monitoring at the workplace:**

7631-86-9 silicon dioxide

NIOSH REL (USA) Long-term value: 6 mg/m³OSHA PEL (USA) Long-term value: 80 mg/m³

1344-28-1 aluminium oxide

PEL (USA) Long-term value: 15*; 5** mg/m³
*Total dust; ** Respirable fraction

REL (USA) Long-term value: 10* 5** mg/m³
as Al*Total dust**Respirable/pyro powd./welding f.

TLV (USA) Long-term value: 1* mg/m³
as Al; *as respirable fraction

14808-60-7 quartz

PEL (USA) see Quartz listing

REL (USA) Long-term value: 0,05* mg/m³
*respirable dust; See Pocket Guide App. A

TLV (USA) Long-term value: 0,025* mg/m³
*as respirable fraction

- **DNELs:** No further relevant information available.
- **PNECs:** No further relevant information available.

· 8.2 Exposure controls

- **Personal protective equipment:**

- **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Do not breathe dust.

Avoid close or long term contact with the skin.

Avoid contact with the eyes.

- **Respiratory protection:**

Not required under normal conditions of use.

For spills, respiratory protection may be advisable.

Use respiratory protection when grinding or cutting material.

Particulate mask should filter at least 99% of airborne particles.

- **Protection of hands:**

Wear gloves for the protection against mechanical hazards according to NIOSH or EN 388.

(Cont'd. on page 5)

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA
GHS

Printing date: 02.02.2016

Revision: 02.02.2016

**Trade name: Denstone®-57, Denstone®-2000, Denstone® deltaP®, NGBT, Pentaring Bed Topping
Media, Ceramic Support Media, Proware™ Materials**

(Cont'd. from page 4)

- **Eye protection:**



Safety glasses

- **Body protection:** Protective work clothing
- **Limitation and supervision of exposure into the environment:** Avoid release to the environment.
- **Risk management measures:** See Section 7 for additional information.

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **Appearance**

Form: Solid in various forms

Colour: Tan.

- **Odour:** Odourless

- **Odour threshold:** Not determined.

- **pH-value:** Not applicable.

- **Melting point/Melting range:** >1200 °C (>2192 °F)

- **Boiling point/Boiling range:** >2000 °C (>3632 °F)

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Not determined.

- **Auto/Self-ignition temperature:** Not determined.

- **Decomposition temperature:** Not determined.

- **Self-igniting:** Product is not self-igniting.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits**

Lower: Not determined.

Upper: Not determined.

- **Oxidising properties** Not determined.

- **Vapour pressure:** Not determined.

- **Density:** Not determined.

- **Relative density:** 2-3 (water = 1)

- **Vapour density:** Not applicable.

- **Evaporation rate:** Not applicable.

- **Solubility in / Miscibility with**

water: Insoluble.

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

(Cont'd. on page 6)

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA
GHS

Printing date: 02.02.2016

Revision: 02.02.2016

Trade name: Denstone®-57, Denstone®-2000, Denstone® deltaP®, NGBT, Pentaring Bed Topping Media, Ceramic Support Media, Proware™ Materials

(Cont'd. from page 5)

- **Viscosity**
 - Dynamic:** Not applicable.
 - Kinematic:** Not applicable.
- **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with strong acids and alkali.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials** No further relevant information available.
- **10.6 Hazardous decomposition products** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **LD/LC50 values relevant for classification:** None.
- **Primary irritant effect**
- **Skin corrosion/irritation:** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation:** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation:** Based on available data, the classification criteria are not met.
- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer):**

| | | |
|------------|-----------------|---|
| 7631-86-9 | silicon dioxide | 3 |
| 14808-60-7 | quartz | 1 |

- **NTP (National Toxicology Program):**

| | | |
|------------|--------|---|
| 14808-60-7 | quartz | K |
|------------|--------|---|

- **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

- **Probable routes of exposure:**

Ingestion.
Eye contact.
Skin contact.

- **Acute effects (acute toxicity, irritation and corrosivity):** From product as supplied: None.
- **Repeated dose toxicity:** No further relevant information available.
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

(Cont'd. on page 7)

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA
GHS

Printing date: 02.02.2016

Revision: 02.02.2016

Trade name: Denstone®-57, Denstone®-2000, Denstone® deltaP®, NGBT, Pentaring Bed Topping Media, Ceramic Support Media, Proware™ Materials

(Cont'd. from page 6)

- **Carcinogenicity:**
Contains known or suspect carcinogens when inhaled. Product is in non-inhalable form and is non-classifiable as a carcinogen.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Generally not hazardous for water
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Smaller quantities can be disposed of with household waste.
Contact waste processors for recycling information.
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|---|---------------|
| <ul style="list-style-type: none"> · 14.1 UN-Number · DOT, ADR, IMDG, IATA | Not Regulated |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · DOT, ADR, IMDG, IATA | Not Regulated |

(Cont'd. on page 8)

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA
GHS

Printing date: 02.02.2016

Revision: 02.02.2016

Trade name: Denstone®-57, Denstone®-2000, Denstone® deltaP®, NGBT, Pentaring Bed Topping Media, Ceramic Support Media, Proware™ Materials

(Cont'd. from page 7)

- | | |
|--|-----------------|
| · 14.3 Transport hazard class(es) | |
| · DOT, ADR, IMDG, IATA | |
| · Class | Not Regulated |
| · 14.4 Packing group | |
| · DOT, ADR, IMDG, IATA | Not Regulated |
| · 14.5 Environmental hazards: | |
| · Marine pollutant: | No |
| · 14.6 Special precautions for user | |
| | Not applicable. |
| · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | |
| | Not applicable. |

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

1344-28-1 | aluminium oxide

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65 (California):**

· **Chemicals known to cause cancer:**

Reference to Crystalline Silica and/or Quartz is based on unbound respirable particles and is not generally applicable to product as supplied.

14808-60-7 | quartz

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

(Cont'd. on page 9)

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA
GHS

Printing date: 02.02.2016

Revision: 02.02.2016

Trade name: Denstone®-57, Denstone®-2000, Denstone® deltaP®, NGBT, Pentaring Bed Topping Media, Ceramic Support Media, Proware™ Materials

(Cont'd. from page 8)

- **Carcinogenic Categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients are listed.

- **IARC (International Agency for Research on Cancer)**

| | | |
|------------|-----------------|---|
| 7631-86-9 | silicon dioxide | 3 |
| 14808-60-7 | quartz | 1 |

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

14808-60-7 quartz

- **Canada**

- **Canadian Domestic Substances List (DSL)**

All ingredients are listed.

- **Canadian Ingredient Disclosure list (limit 0,1%)**

None of the ingredients are listed.

- **Canadian Ingredient Disclosure list (limit 1%)**

All ingredients are listed.

- **Other regulations, limitations and prohibitive regulations**

- **Substances of very high concern (SVHC) according to REACH, Article 57**

None of the ingredients are listed.

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

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Abbreviations and acronyms:**

ADR: 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
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 DNEL: Derived No-Effect Level (REACH)
 PNEC: Predicted No-Effect Concentration (REACH)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 SVHC: Substances of Very High Concern
 vPvB: very Persistent and very Bioaccumulative
 NIOSH: National Institute for Occupational Safety
 OSHA: Occupational Safety & Health

- **Sources**

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/

(Cont'd. on page 10)

Safety Data Sheet
according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA
GHS

Printing date: 02.02.2016

Revision: 02.02.2016

**Trade name: Denstone®-57, Denstone®-2000, Denstone® deltaP®, NGBT, Pentaring Bed Topping
Media, Ceramic Support Media, Proware™ Materials**

(Cont'd. from page 9)

overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN:
978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website: www.chemtelinc.com