

## SAFETY DATA SHEETS

**This SDS packet was issued with item:**

075141411

**The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).**

075141403

# Material Safety Data Sheet

MSDS No. M001

Date of Review: September 13, 2010

Supersedes MSDS dated: April 6, 2010

## SECTION 1 - PRODUCT IDENTIFICATION

**Product Name:** Denstone, Labstone, Tru-Stone, Die-Stone, Die-Keen, Die-Keen Resin Reinforced, Lab Plaster, Model Plaster, 0-67, Orthodontic Plaster, Mounting Stone, Statstone

**Synonyms:** Gypsum (Calcium Sulfate)

**Manufacturer:** Heraeus Kulzer, LLC  
300 Heraeus Way  
South Bend, IN 46614-2517  
Phone: 800-431-1785  
FAX: 800-522-1545  
Hours: 8:00 A.M. - 4:30 P.M.  
After Hours: Chemtrec @ 1-800-424-9300

## SECTION 2 - CHEMICAL COMPOSITION / HAZARDOUS INGREDIENTS

| MATERIALS                   | CAS #     | HAZARD           | % WT.    | OSHA PEL             | ACGIH TLV            |
|-----------------------------|-----------|------------------|----------|----------------------|----------------------|
| Gypsum<br>(Calcium Sulfate) | 7778-18-9 | Dust<br>Nuisance | 90 - 100 | 15 mg/m <sup>3</sup> | 10 mg/m <sup>3</sup> |

## SECTION 3 - HAZARDS IDENTIFICATION

### \*\*\* POTENTIAL HEALTH EFFECTS \*\*\*

**Target Organs:** Eyes, Skin, Respiratory System

**Signs and Symptoms of Short-Term (Acute) Exposure:**

*Eye:* Particles may cause irritation. Mixed material may develop enough heat to cause burns if large amount comes in contact with skin during hardening.

**Effects of Long-Term (Chronic) Exposure:** Prolonged exposure may cause lung disease.

**Medical Conditions Aggravated by Exposure:** Pre-existing upper respiratory and lung diseases such as, but limited to, bronchitis, emphysema and asthma.

**Hygienic Practices:** Wear a mask while exposed to dust.

**Carcinogenicity:** IARC, NTP, and OSHA does not list any of the ingredients as a carcinogen.

#### SECTION 4 - FIRST AID MEASURES

**Inhalation:** Remove to fresh air.

**Eye Contact:** Remove contact lenses. Rinse eyes with plenty of running water for 10 - 15 minutes, including under eyelids. If irritation occurs, contact physician.

**Skin Contact:** Wash promptly with water. If irritation occurs, contact physician.

**Ingestion:** Product may harden on contact with water. May result in obstruction if ingested. See physician.

#### SECTION 5 - FIRE-FIGHTING MEASURES

**Fire Hazards/Conditions of Flammability:** None Known

**Flash Point (Method):** Not Applicable

**Lower Flammable Limit (% by volume):** Not Applicable

**Upper Flammable Limit (% by volume):** Not Applicable

**Suitable Extinguishing Media:** Non-combustible materials

**Special Fire-Fighting Procedures/Equipment:** None Known

#### SECTION 6 - ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Not Applicable

**Environmental Precautions:** Not Applicable

**Spill/Leak Procedures:** Sweep or vacuum spilled material into a waste container for disposal. Avoid creating excessive dust.

#### SECTION 7 - HANDLING AND STORAGE

**Handling and Storing Precautions:** Be sure proper ventilation and respiratory and eye protection are used under dusting condition.

#### SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

**Ventilation and Engineering Controls:** Provide general ventilation and local exhaust to meet TLV requirements.

**Respiratory Protection:** Wear NIOSH-approved respirator as appropriate for nuisance dust, especially when dry grinding. Excessive particulate in the workplace should be avoided. Wet grinders should be used.

**Protective Gloves:** Wear gloves to prevent prolonged or repeated skin contact.

**Eye Protection:** Wear protective eyeglasses or chemical safety goggles, per OSHA eye and face protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

**Other Protective Equipment:** None Known

**Comments:** Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

**Physical Form, Color and Odor:** Fine powder in various colors

**Odor Threshold:** Low odor

**pH:** Not Applicable

**Boiling Point:** Not Applicable

**Melting/Freezing Point:** Not Applicable

**Vapor Pressure:** Not Applicable

**Solubility in Water:** Slight, 0.2% at 40°C

**Coefficient of Oil/Water Distribution:** Not Applicable

**Specific Gravity or Relative Density (water =1):** 2.3

**Vapor Density (air =1):** Not Applicable

**Volatile Organic Compounds (VOC's):** Not Applicable

**Evaporation Rate:** Not Applicable

## SECTION 10 - STABILITY AND REACTIVITY

**Stability and Reactivity:** Stable

**Conditions to Avoid:** None Known

**Materials to Avoid:** Acids

**Hazardous Decomposition Products:** None Known

**Hazardous Polymerization:** Will Not Occur

## SECTION 11 - TOXICOLOGICAL INFORMATION

**Routes of Exposure:** No Data Available

**Toxicological Data:** No Data Available

**Teratogenicity, Mutagenicity, Other Reproductive Effects:** No Data Available

**Sensitization to Material:** No Data Available

## SECTION 12 - ECOLOGICAL INFORMATION

**General Notes:** None Known

## SECTION 13 - DISPOSAL CONSIDERATIONS

**Disposal:** Follow applicable Federal, State and Local regulations.

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#### SECTION 14 - TRANSPORTATION INFORMATION

**Transportation of Dangerous Goods (TDG) Information:** Not Applicable

*Shipping Description:*

**49 CFR Information:** Not Applicable

*Shipping Description:*

**International Dangerous Goods Information:** Not Applicable

*IMO:*

*ICAO:*

**Other Information:** Not Applicable

#### SECTION 15 - REGULATORY INFORMATION

**WHMIS Information:** Not Applicable

**WHMIS Classification:** Not Applicable

**CEPA Information:** Not Applicable

**TSCA Information:** Components of this product is listed on the TSCA inventory.

**SARA Title III:** Die-Keen Green and Blue and Milestone Blue contain Chromium III Compound which is subject of the reporting requirements of SARA Title III, Section 311, 312 and 313.

#### SECTION 16 - OTHER INFORMATION

**Prepared By:** Regulatory Department

##### **Additional Notes or References:**

**ACGIH:** American Conference of Governmental Industrial Hygienists

**IARC:** International Agency for Research on Cancer

**NIOSH:** National Institute for Occupational Safety and Health

**WHMIS:** Workplace Hazardous Materials Information System

**Revision:** Noted

We believe that the information contained herein is current as of the date of this Material Safety Data Sheet. Since the use of this information and these opinions and the conditions of use of the product are not within the control of Heraeus Kulzer, Inc., it is the user's obligation to determine the conditions of safe use of the product.

## SAFETY DATA SHEET

### SECTION 1 : IDENTIFICATION

Product identifier used on the label:

**Product Name:** DieKeenResinReinforced Blue

Other means of identification:

**Synonyms:** None

Recommended use of the chemical and restrictions on use:

**Product Use/Restriction:** None.

Chemical manufacturer address and telephone number:

**Manufacturer Name:** Heraeus Kulzer, LLC (Mitsui Chemicals Group)  
**Address:** 300 Heraeus Way  
South Bend, Indiana 46614-2517  
USA  
**General Phone Number:** 800-431-1785

Emergency phone number:

**Emergency Phone Number:** Chemtrec @ 1-800-424-9300

### SECTION 2 : HAZARD(S) IDENTIFICATION

Classification of the chemical in accordance with CFR 1910.1200(d)(f):

**GHS Pictograms:**



**Signal Word:** WARNING.

**GHS Class:** Eye Irritation. Category 2.

**Hazard Statements:** H319 - Causes serious eye irritation.

**Precautionary Statements:** P264 - Wash hands thoroughly after handling.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 - If eye irritation persists: Get medical advice/attention.

Hazards not otherwise classified that have been identified during the classification process:

**Route of Exposure:** Eyes. Skin. Inhalation. Ingestion.

**Potential Health Effects:**

**Eye:** Eye contact with the dust may cause irritation.

**Skin:** May cause skin irritation.

**Inhalation:** May be harmful if inhaled.

**Ingestion:** May be harmful if ingested.

**Target Organs:** Eyes. Skin. Respiratory system. Digestive system.

**Aggravation of Pre-Existing Conditions:** None generally recognized.

### SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures:

| Chemical Name                  | CAS#       | Ingredient Percent | EC Num. |
|--------------------------------|------------|--------------------|---------|
| Polyvinyl Alcohol              | 9002-89-5  | 1 - 5 by weight    |         |
| Ammonium Naphthalene Sulfonate | 9069-80-1  | 1 - 5 by weight    |         |
| Portland Cement                | 65997-15-1 | 1 - 5 by weight    |         |
| Plaster of Paris               | 26499-65-0 | 80 - 90 by weight  |         |

## SECTION 4 : FIRST AID MEASURES

### Description of necessary measures:

|                      |   |
|----------------------|---|
| <b>Eye Contact:</b>  | If dust gets into eyes. Flush eye with water for 15 minutes. Remove contact lenses, if applicable, and continue flushing. If eye irritation persists, consult a specialist.         |
| <b>Skin Contact:</b> | If dust gets onto the skin. Wash skin with soap and plenty of water.<br>Get medical attention if irritation develops or persists.   |
| <b>Inhalation:</b>   | If dust is inhaled, remove the affected person to fresh air. If symptoms persist, get medical attention.  |
| <b>Ingestion:</b>    | Accidental ingestion of this material is unlikely. If it does occur, watch the person for several days to make sure that partial or complete intestinal obstruction does not occur. |

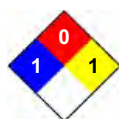
## SECTION 5 : FIRE FIGHTING MEASURES

### Suitable and unsuitable extinguishing media:

|                                      |   |
|--------------------------------------|---|
| <b>Suitable Extinguishing Media:</b> | Use any extinguishing media appropriate for the surrounding fires. Dike to control run-on/run-off if water is used to fight fires |
|--------------------------------------|---|

### **NFPA Ratings:**

|                    |   |
|--------------------|---|
| NFPA Health:       | 1 |
| NFPA Flammability: | 0 |
| NFPA Reactivity:   | 1 |



## SECTION 6 : ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures:

|                               |  |
|-------------------------------|--|
| <b>Personnel Precautions:</b> | Evacuate area and keep unnecessary and unprotected personnel from entering the spill area.<br>Persons responding to an accidental release should wear coveralls, gloves, safety glasses or other protective clothing as required. Close-fitting goggles may be necessary in some circumstances to prevent eye contact with dust. Workers should wash and change clothing following cleanup of a spill to prevent personal contamination. |
|-------------------------------|--|

### Environmental precautions:

|                                   |   |
|-----------------------------------|---|
| <b>Environmental Precautions:</b> | Avoid runoff into storm sewers, ditches, and waterways. |
|-----------------------------------|---|

### Methods and materials for containment and cleaning up:

|                                 |  |
|---------------------------------|--|
| <b>Methods for containment:</b> | Collect spillage and prevent from spreading by covering, diking, berming or other means. Minimize dust generation. |
|---------------------------------|--|

|                             |  |
|-----------------------------|--|
| <b>Methods for cleanup:</b> | Control source of spillage if possible to do so safely.<br>Restrict access to the area until completion of clean up.<br>Contain spilled material immediately and control run-on and run-off.<br>Clean up spilled material observing precautions listed in Section 8, Personal Protection and using methods that will minimize dust generation.<br>Uncontaminated materials can be recovered for return to process. Contaminated materials should be placed in suitable labeled containers for later recovery or disposal.<br>Waste material must be treated and disposed of in accordance with all local, regional, and national requirements. |
|-----------------------------|--|

## SECTION 7 : HANDLING and STORAGE

### Precautions for safe handling:

|                           |  |
|---------------------------|--|
| <b>Handling:</b>          | No special handling procedures are required for this material. Avoid dust formation. |
| <b>Hygiene Practices:</b> | Wash hands with water as a precaution. Do not breathe dust.                          |

### Conditions for safe storage, including any incompatibilities:

|                 |   |
|-----------------|---|
| <b>Storage:</b> | No special storage conditions required. |
|-----------------|---|

## SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

### EXPOSURE GUIDELINES:

#### **Portland Cement :**

|                         |  |
|-------------------------|--|
| <b>Guideline ACGIH:</b> | TLV-TWA: 1 mg/m <sup>3</sup> (E,R)<br>TLV-TWA: 1 mg/m <sup>3</sup> Respirable fraction (R)   |
| <b>Guideline OSHA:</b>  | PEL-TWA: 5 mg/m <sup>3</sup> Respirable fraction (R)<br>PEL-TWA: 50 mppcf Total particulate/dust (T)<br>PEL-TWA: 15 mg/m <sup>3</sup> Total particulate/dust (T) |

#### **Plaster of Paris :**

|                        |  |
|------------------------|--|
| <b>Guideline OSHA:</b> | PEL-TWA: 15 mg/m <sup>3</sup> Total particulate/dust (T)<br>PEL-TWA: 5 mg/m <sup>3</sup> Respirable fraction (R) |
|------------------------|--|

### Appropriate engineering controls:

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**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. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

**Individual protection measures:****Eye/Face Protection:**

Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166. Close-fitting goggles may be necessary in some circumstances to prevent eye contact with dust.

**Skin Protection Description:**

Coveralls or other work clothing, safety glasses, and gloves are recommended to prevent prolonged or repeated direct skin and eye contact.

**Hand Protection Description:**

Wear appropriate protective gloves and other protective apparel to prevent skin contact. Consult manufacturer's data for permeability data.

**Respiratory Protection:**

No personal respiratory protective equipment normally required. When workers are facing airborne particulate/dust concentrations above the exposure limit they must use appropriate certified respirators.

**PPE Pictograms:**

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**SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES**

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**PHYSICAL AND CHEMICAL PROPERTIES:**

|                                  |                               |
|----------------------------------|-------------------------------|
| Physical State:                  | Fine powder.                  |
| Color:                           | Blue                          |
| Odor:                            | Not determined.               |
| Boiling Point:                   | Not determined.               |
| Melting Point:                   | Not determined.               |
| Specific Gravity:                | 2.3                           |
| Solubility:                      | Slight, 0.2% at 40°C in water |
| Vapor Pressure:                  | Not determined.               |
| Percent Volatile:                | Not determined.               |
| Evaporation Rate:                | Not determined.               |
| pH:                              | Not determined.               |
| Flash Point:                     | Not determined.               |
| Lower Flammable/Explosive Limit: | Not determined.               |
| Upper Flammable/Explosive Limit: | Not determined.               |
| Auto Ignition Temperature:       | Not determined.               |
| VOC Content:                     | Not determined.               |

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**SECTION 10 : STABILITY and REACTIVITY**

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**Chemical Stability:**

Chemical Stability: None under normal use.

**Possibility of hazardous reactions:**

Hazardous Polymerization: Will not occur.

**Conditions To Avoid:**

Conditions to Avoid: Dust dispersion in air.

**Incompatible Materials:**

Incompatible Materials: None during normal use.

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**SECTION 11 : TOXICOLOGICAL INFORMATION**

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**TOXICOLOGICAL INFORMATION:****Polyvinyl Alcohol :**

Ingestion: Oral - Rat LD50 - Lethal dose, 50 percent kill: >20 gm/kg [Behavioral - Altered sleep time (including change in righting reflex) Behavioral - Somnolence (general depressed activity) Behavioral - Muscle weakness]  
Oral - Rat LD50 - Lethal dose, 50 percent kill: 23854 mg/kg [Behavioral - Muscle weakness  
Gastrointestinal - Hypermotility, diarrhea Liver - Other changes] (RTECS)

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**SECTION 12 : ECOLOGICAL INFORMATION**

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

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**SECTION 13 : DISPOSAL CONSIDERATIONS**

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**Description of waste:****Waste Disposal:** Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.

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**SECTION 14 : TRANSPORT INFORMATION**

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**UN number:** Not regulated as hazardous material for transportation.**UN proper shipping name:** Not regulated as hazardous material for transportation.**DOT Shipping Name:** Not regulated as hazardous material for transportation.**DOT UN Number:** Not regulated as hazardous material for transportation.

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**SECTION 15 : REGULATORY INFORMATION**

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**Safety, health and environmental regulations specific for the product:****Canada WHMIS:** Controlled - Class: D2B Toxic  
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the Controlled Products Regulations.**Polyvinyl Alcohol :****TSCA Inventory Status:** Listed**Canada DSL:** Listed**Ammonium Naphthalene Sulfonate :****TSCA Inventory Status:** Listed**Canada DSL:** Listed**Portland Cement :****TSCA Inventory Status:** Listed**Canada DSL:** Listed

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**SECTION 16 : ADDITIONAL INFORMATION**

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**HMIS Ratings:****HMIS Health Hazard:** 1**HMIS Fire Hazard:** 0**HMIS Reactivity:** 1**HMIS Personal Protection:** X

|                     |   |
|---------------------|---|
| Health Hazard       | 1 |
| Fire Hazard         | 0 |
| Reactivity          | 1 |
| Personal Protection | X |

**SDS Revision Date:** May 25, 2015**SDS Format:****MSDS Author:** Regulatory department

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