



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

| | |
|-------------------------------------|--|
| Product name | DTG Grouts - Various Colors |
| Product name(s) covered | See Section 16 for Product Names Covered. |
| MSDS name | DTG Grouts - Various Colors |
| CAS number | Mixture |
| Generic description | Hydroment Grout/Cement - All Colors |
| Manufacturer | Bostik, Inc. 211 Boston Street Middleton, MA 01949 USA |
| 24 hour emergency assistance | Telephone: 1-800-227-0332 |
| General assistance | Telephone: 1-978-777-0100 |
| MSDS assistance | Telephone: 1-414-607-1347 |

2. COMPOSITION / INFORMATION ON INGREDIENTS

| Hazardous component(s) | CAS # | Percent |
|---|------------|---------|
| Silica, Quartz | 14808-60-7 | 40 - 70 |
| Portland Cement | 65997-15-1 | 30 - 60 |
| C.I. Pigment Blue 36 | 68187-11-1 | 0 - 4.5 |
| Iron oxide | 1309-37-1 | 0 - 3.5 |
| Titanium dioxide | 13463-67-7 | 0 - 3 |
| C.I. Pigment Blue 28 | 1345-16-0 | 0 - 2.5 |
| Gypsum (Ca(SO ₄).2H ₂ O) | 13397-24-5 | 0 - 2.5 |
| Carbon black | 1333-86-4 | 0 - 2 |
| Chromium (III) oxide | 1308-38-9 | 0 - 1.5 |

Composition comments Chronic overexposure to Silica can cause chronic lung disease (Silicosis) and/or cancer. Portland Cement contains up to 10 ppm (0.001%) Hexavalent chromium, which is a skin sensitizer and carcinogen. In its end use form, this product is caustic with a pH >12.0.

Chemical characterization Parts Per Million (ppm) = 0.0001%
mg/kg = 1 ppm (0.0001%)
g/kg = 1000 ppm (0.1%)
Conversion from mg/m³ to ppm: ppm = (mg/m³ / molecular weight in grams) x 24.45

3. HAZARDS IDENTIFICATION

Emergency overview Exposure to dust may be irritating to eyes, nose, and throat. Chronic lung disease (silicosis) and/or lung cancer may result from prolonged/repeated breathing of Silica dust.

This product contains trace amounts of hexavalent chromium, a skin sensitizer and human carcinogen. Prolonged/repeated exposure may cause severe allergic skin reactions and/or cancer.

Because this product is caustic when wet (pH>12.0), wet product or dry product on moist skin can potentially cause severe irritation and/or irreversible tissue damage due to chemical (caustic) burns.

Potential health effects

| | |
|----------------------|--|
| Skin | <p>Prolonged and/or repeated skin contact with this product may cause irritation/dermatitis. Mechanical rubbing may increase skin irritation.</p> <p>Skin contact may cause an allergic response in some individuals due to trace amounts of chromium (6+) salts. Symptoms can range from a mild rash to severe skin ulcers. Persons already sensitized to hexavalent chromium may experience symptoms after minimal exposure.</p> <p>Product is caustic when wet (pH >12.0). Exposure of sufficient duration to wet product, or to dry product on moist skin, can cause serious, potentially irreversible tissue damage due to chemical (caustic) burns, including third degree burns.</p> |
| Eyes | <p>Airborne dust may cause immediate or delayed irritation or inflammation. Eye contact with large amounts of dry powder or with wet product can cause moderate eye irritation, chemical burns and blindness. Eye exposures require immediate first aid and medical attention to prevent significant damage to the eye.</p> |
| Inhalation | <p>This product contains free crystalline silica. Prolonged or repeated inhalation of crystalline silica can aggravate lung conditions and lead to silicosis, a seriously disabling and potentially fatal lung disease. Inhalation of free crystalline silica has also been linked to increased occurrence of renal disease and auto immune disorders.</p> |
| Ingestion | <p>May cause nausea, vomiting, pain, stomach upset, and diarrhea. Ingestion of large quantities may cause chemical burns in the mouth, throat, stomach, and digestive tract.</p> |
| Target organs | <p>Respiratory tract - Silica can target and damage the lungs. Some studies show an increased incidence in kidney and end-stage renal disease in individuals exposed to respirable Silica. Hexavalent chromium can cause skin sensitization and damage.</p> |

4. FIRST AID MEASURES

First aid

| | |
|---------------------------|---|
| Skin | <p>Wash affected area with mild soap and water. If irritation persists, get medical attention. Seek medical attention for rash, burns, irritation, dermatitis, and prolonged, unprotected exposures to wet product.</p> |
| Eye | <p>Immediately flush with plenty of water for at least 15 minutes, holding eyelids open at all times. Get medical attention immediately.</p> |
| Inhalation | <p>Remove to fresh air. Get medical attention immediately for a large dose exposure or if cough or other symptoms develop.</p> |
| Ingestion | <p>Due to the physical nature of this material, ingestion is unlikely to occur. If ingestion of a large amount does occur, get medical attention immediately. Do not induce vomiting unless directed to do so by medical personnel.</p> |
| Notes to physician | <p>Short-term exposure to very large amounts of respirable crystalline silica can cause serious lung inflammation and pulmonary edema, resulting in shortness of breath and low blood oxygen levels. Longer-term exposure may result in nodules of chronic inflammation and scarring in the lungs and chest lymph nodes. Symptoms of long-term exposure may resemble those of chronic obstructive pulmonary disease (COPD).</p> |

5. FIRE FIGHTING MEASURES

| | |
|---|---|
| Hazardous combustion products | <p>Non-combustible, substance itself does not burn.</p> |
| Extinguishing media | <p>Use any media suitable for the surrounding fires.</p> |
| Basic fire fighting procedures | <p>Not a fire hazard. This material will not burn. Product is caustic when wet (pH >12.0). Use personal protective equipment to prevent inhalation of airborne product and eye and skin contact with wet or dry product.</p> |
| Dust explosion hazard | <p>None Known</p> |
| Sensitivity to mechanical impact | <p>None Known</p> |
| Sensitivity to static discharge | <p>None Known</p> |

6. ACCIDENTAL RELEASE MEASURES

| | |
|-------------------------|---|
| Emergency action | Avoid actions that cause the dry product to become airborne during clean up. Avoid inhalation and contact with eyes and skin. Place spilled material into a container for reuse or proper disposal. |
| | Product is caustic when wet (pH >12.0). Wear appropriate protective equipment as described in Section 8. |
| Reporting | See Federal reporting requirements listed in Section 15. We recommend you contact local authorities to determine if there may be other local reporting requirements. |

7. HANDLING & STORAGE

| | |
|-----------------|---|
| Handling | Avoid breathing dusts from this material. Remove dust fines from air or wear recommended respirator. Avoid contact with skin and eyes. Promptly remove and launder clothing that is dusty or wet with product. Thoroughly wash skin after exposure to dry or wet product. |
| Storage | Store in a clean, dry area. Keep containers closed. |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| | |
|---------------------------------|--|
| Engineering controls | Use local or general ventilation to control airborne dust below applicable exposure limits. |
| Eye protection | Wear safety goggles to prevent eye contact with dry or wet product. In extremely dusty or unpredictable environments, wear unvented or indirectly vented goggles to avoid eye irritation or injury. |
| Skin and body protection | Wear impervious abrasion and alkaline resistant gloves and boots, long sleeved shirt, long pants, safety goggles and other protective clothing as required to prevent skin contact. Remove clothing and protective equipment that becomes dusty from dry product or saturated with wet product and immediately wash exposed areas. |
| Respiratory protection | Respiratory protection is not normally required for ambient air concentrations not exceeding the Occupational Exposure Limit. If ventilation is not sufficient to effectively prevent buildup of dusts, wear appropriate NIOSH/MSHA respiratory protection. |

Exposure limits

ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)

| | | |
|-----------------------|------------|---|
| C.I. Pigment Blue 28 | 1345-16-0 | <u>0.02 mg/m3 TWA</u> |
| C.I. Pigment Blue 36 | 68187-11-1 | <u>0.02 mg/m3 TWA</u> |
| Carbon black | 1333-86-4 | <u>3.5 mg/m3 TWA</u> |
| Chromium (III) oxide | 1308-38-9 | <u>0.5 mg/m3 TWA (as Cr)</u> |
| Gypsum (Ca(SO4).2H2O) | 13397-24-5 | <u>10 mg/m3 TWA (inhalable fraction, listed under Calcium sulfate)</u> |
| Iron oxide | 1309-37-1 | <u>5 mg/m3 TWA (respirable fraction)</u> |
| Portland Cement | 65997-15-1 | <u>10 mg/m3 TWA (particulate matter containing no asbestos and <1% crystalline silica)</u> |
| Silica, Quartz | 14808-60-7 | <u>0.025 mg/m3 TWA (respirable fraction)</u> |
| Titanium dioxide | 13463-67-7 | <u>10 mg/m3 TWA</u> |

NIOSH - Pocket Guide - TWAs

| | | |
|-----------------------|------------|--|
| C.I. Pigment Blue 28 | 1345-16-0 | <u>0.05 mg/m3 TWA (dust and fume)</u> |
| C.I. Pigment Blue 36 | 68187-11-1 | <u>0.05 mg/m3 TWA (dust and fume)</u> |
| Carbon black | 1333-86-4 | <u>3.5 mg/m3 TWA; 0.1 mg/m3 TWA (as PAH, carbon black in presence of polycyclic aromatic hydrocarbons)</u> |
| Chromium (III) oxide | 1308-38-9 | <u>0.5 mg/m3 TWA (as Cr)</u> |
| Gypsum (Ca(SO4).2H2O) | 13397-24-5 | <u>10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)</u> |
| Iron oxide | 1309-37-1 | <u>5 mg/m3 TWA (dust and fume, as Fe)</u> |
| Portland Cement | 65997-15-1 | <u>10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)</u> |
| Silica, Quartz | 14808-60-7 | <u>0.05 mg/m3 TWA (respirable dust)</u> |

OSHA - Final PELs - Time Weighted Averages (TWAs)

| | | |
|-----------------------|------------|---|
| C.I. Pigment Blue 28 | 1345-16-0 | <u>0.1 mg/m3 TWA (dust and fume)</u> |
| C.I. Pigment Blue 36 | 68187-11-1 | <u>0.1 mg/m3 TWA (dust and fume)</u> |
| Carbon black | 1333-86-4 | <u>3.5 mg/m3 TWA</u> |
| Chromium (III) oxide | 1308-38-9 | <u>0.5 mg/m3 TWA (as Cr)</u> |
| Gypsum (Ca(SO4).2H2O) | 13397-24-5 | <u>15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)</u> |
| Iron oxide | 1309-37-1 | <u>10 mg/m3 TWA</u> |
| Portland Cement | 65997-15-1 | <u>15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)</u> |
| Titanium dioxide | 13463-67-7 | <u>15 mg/m3 TWA (total dust)</u> |

OSHA - Vacated PELs - TWAs

| | | |
|-----------------------|------------|---|
| C.I. Pigment Blue 28 | 1345-16-0 | <u>0.05 mg/m3 TWA (dust and fume)</u> |
| C.I. Pigment Blue 36 | 68187-11-1 | <u>0.05 mg/m3 TWA (dust and fume)</u> |
| Carbon black | 1333-86-4 | <u>3.5 mg/m3 TWA</u> |
| Chromium (III) oxide | 1308-38-9 | <u>0.5 mg/m3 TWA (as Cr)</u> |
| Gypsum (Ca(SO4).2H2O) | 13397-24-5 | <u>15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)</u> |
| Iron oxide | 1309-37-1 | <u>10 mg/m3 TWA (fume)</u> |
| Portland Cement | 65997-15-1 | <u>10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)</u> |
| Silica, Quartz | 14808-60-7 | <u>0.1 mg/m3 TWA (respirable dust)</u> |
| Titanium dioxide | 13463-67-7 | <u>10 mg/m3 TWA (total dust)</u> |

9. PHYSICAL & CHEMICAL PROPERTIES

| | |
|----------------|----------------------------------|
| Target solids | 100 % |
| pH | N/A (pH of wet product is >12.0) |
| Density | 2.8 g/cc |
| Odor | Slight |
| Color | Various |
| Physical state | Powder |
| Freeze protect | No |

10. STABILITY & REACTIVITY

| | |
|--|---|
| Hazardous reactions/decomposition products | Wet product is alkaline (pH >12.0) and is incompatible with acids, ammonia salts, and aluminum metal. |
| Stability | Stable under normal conditions. |

11. TOXICOLOGICAL INFORMATION

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|--------------------|--|
| Toxicological data | If any toxicological data is available, it will be listed below: |
|--------------------|--|

LD50

Toxicology Data - Selected LD50s and LC50s

| | | |
|----------------------|------------|---|
| C.I. Pigment Blue 28 | 1345-16-0 | <u>Oral LD50 Rat: 6171 mg/kg</u> |
| C.I. Pigment Blue 36 | 68187-11-1 | <u>Oral LD50 Rat: 6171 mg/kg</u> |
| Carbon black | 1333-86-4 | <u>Oral LD50 Rat: >15400 mg/kg; Dermal LD50 Rabbit: >3 g/kg</u> |
| Iron oxide | 1309-37-1 | <u>Oral LD50 Rat: >10000 mg/kg</u> |
| Silica, Quartz | 14808-60-7 | <u>Oral LD50 Rat: 500 mg/kg</u> |
| Titanium dioxide | 13463-67-7 | <u>Oral LD50 Rat: >10000 mg/kg</u> |

Chronic effects

Chronic overexposure to Silica has been associated with the development of chronic lung disease (Silicosis) and cancer.
Hexavalent chromium can cause skin sensitization, dermatitis, and cancer. Individuals already sensitized to Hexavalent chromium can have an adverse reaction to even small exposures.

Carcinogenicity

If this product contains any carcinogens, they will be noted below:

IARC - Group 1 (Carcinogenic to Humans)

| | | |
|----------------|------------|--|
| Silica, Quartz | 14808-60-7 | <u>Monograph 68 [1997] (listed under Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources)</u> |
|----------------|------------|--|

IARC - Group 2B (Possibly Carcinogenic to Humans)

| | | |
|----------------------|------------|--|
| C.I. Pigment Blue 28 | 1345-16-0 | <u>Monograph 52, 1991 (Evaluated as a group)</u> |
| C.I. Pigment Blue 36 | 68187-11-1 | <u>Monograph 52, 1991 (Evaluated as a group)</u> |
| Carbon black | 1333-86-4 | <u>Monograph 93 posted, Monograph 65 [1996]</u> |
| Titanium dioxide | 13463-67-7 | <u>Monograph 93 posted, Monograph 47 [1989]</u> |

NIOSH - Pocket Guide - Potential Occupational Carcinogens

| | | |
|------------------|------------|--|
| Carbon black | 1333-86-4 | <u>potential occupational carcinogen (in presence of polycyclic aromatic hydrocarbons)</u> |
| Silica, Quartz | 14808-60-7 | <u>potential occupational carcinogen</u> |
| Titanium dioxide | 13463-67-7 | <u>potential occupational carcinogen</u> |

NTP (National Toxicology Program) - Report on Carcinogens - Known Carcinogens

| | | |
|----------------|------------|-------------------------|
| Silica, Quartz | 14808-60-7 | <u>Known Carcinogen</u> |
|----------------|------------|-------------------------|

OSHA - Hazard Communication Carcinogens

| | | |
|----------------------|------------|----------------|
| C.I. Pigment Blue 28 | 1345-16-0 | <u>Present</u> |
| C.I. Pigment Blue 36 | 68187-11-1 | <u>Present</u> |
| Carbon black | 1333-86-4 | <u>Present</u> |
| Silica, Quartz | 14808-60-7 | <u>Present</u> |
| Titanium dioxide | 13463-67-7 | <u>Present</u> |

12. ECOLOGICAL INFORMATION

Ecotoxicological information No data available for this product.

13. DISPOSAL CONSIDERATIONS

It is the obligation of each user of the product mentioned herein to determine and comply with the requirements of all applicable local, state and federal regulations.

Waste disposal This product as supplied is not considered a hazardous waste under RCRA. Dispose of in compliance with all local, state, and federal regulations.

14. TRANSPORT INFORMATION

Department of Transportation (DOT) Requirements

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. REGULATORY INFORMATION

This MSDS is prepared and distributed pursuant to the Federal Hazard Communication Standard, 29 CFR 1910.1200.

Federal regulations All components are on the U.S. EPA TSCA Inventory List.

CERCLA/SARA - Section 313 - Emission Reporting

| | | |
|----------------------|------------|--|
| C.I. Pigment Blue 28 | 1345-16-0 | <u>0.1 percent de minimis concentration</u> |
| C.I. Pigment Blue 36 | 68187-11-1 | <u>0.1 percent de minimis concentration</u> |
| Chromium (III) oxide | 1308-38-9 | <u>1.0 percent de minimis concentration (Chemical Category N090)</u> |

State regulations

If this product contains any ingredients listed under California Proposition 65, they will be noted below:

California - Proposition 65 - Carcinogens List

| | | |
|----------------------|------------|--|
| C.I. Pigment Blue 28 | 1345-16-0 | <u>carcinogen, initial date 7/1/92 (powder)</u> |
| C.I. Pigment Blue 36 | 68187-11-1 | <u>carcinogen, initial date 7/1/92 (powder)</u> |
| Carbon black | 1333-86-4 | <u>carcinogen, initial date 2/21/03 (airborne, unbound particles of respirable size)</u> |
| Lead | 7439-92-1 | <u>carcinogen, initial date 10/1/92 Trace impurity</u> |
| Nickel | 7440-02-0 | <u>carcinogen, initial date 10/1/89 Trace impurity</u> |
| Silica, cristobalite | 14464-46-1 | <u>carcinogen, initial date 10/1/88 (airborne particles of respirable size)</u> |
| Silica, Quartz | 14808-60-7 | <u>carcinogen, initial date 10/1/88 (airborne particles of respirable size)</u> |

California - Proposition 65 - Developmental Toxicity

| | | |
|------|-----------|--|
| Lead | 7439-92-1 | <u>developmental toxicity, initial date 2/27/87 Trace impurity</u> |
|------|-----------|--|

California - Proposition 65 - Reproductive Toxicity - Female

| | | |
|------|-----------|--|
| Lead | 7439-92-1 | <u>female reproductive toxicity, initial date 2/27/87 Trace impurity</u> |
|------|-----------|--|

California - Proposition 65 - Reproductive Toxicity - Male

| | | |
|------|-----------|--|
| Lead | 7439-92-1 | <u>male reproductive toxicity, initial date 2/27/87 Trace impurity</u> |
|------|-----------|--|

International regulations

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and contains all the information required by the Controlled Products Regulations.

HMIS Ratings

Health: 3*
Flammability: 0
Physical hazard: 0
Personal protection: X

SARA 311/312 HAZARD CATEGORIES

Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

WHMIS status

Controlled

WHMIS labeling**WHMIS classification**

D2A - Other Toxic Effects-VERY TOXIC
D2B - Other Toxic Effects-TOXIC
E - Corrosive

16. OTHER INFORMATION**Product name(s) covered**

G00719 - DTG White H152
G00720 - DTG Copper Canyon H140
G00721 - DTG Summer Wheat H150
G00722 - DTG Latte H192
G00724 - DTG Cashmere H178
G00725 - DTG Sand Beige H148
G00727 - DTG Flash Walnut H141
G00728 - DTG Brown H137
G00741 - DTG Brick H136
G00749 - DTG Smokewood H149
G00761 - DTG Misty Gray H144
G00766 - DTG Shadow H195
G00768 - DTG French Gray H142
G00770 - DTG Antique White H135
G00772 - DTG Champagne H138
G00773 - DTG Mobe Pearl H145
G00774 - DTG Bamboo H179
G00775 - DTG Taupe H151
G00776 - DTG Kahlua Cream H143
G00777 - DTG Peaches & Cream H147
G00784 - DTG Char Black H139
G67335 - DTG Essex Green H170

G97108 - DTG Cameo H156
G97113 - DTG Cranes Beach H159
G97114 - DTG Classic Bone H158
G97116 - DTG Buff H188
G97265 - DTG Almond H153
G97284 - DTG Jamoca H162
G97289 - DTG Portabella H184
G97290 - DTG Sedona H190
G97291 - DTG Khaki H187
G97332 - DTG Myst H165
G97334 - DTG Aspen Mist H154
G97338 - DTG Woodlands H194
G97446 - DTG Nordic Orchid H182
G97522 - DTG Heron Blue H171
G97527 - DTG Ice Blue H161
G97635 - DTG Delorean Gray H160
G97648 - DTG Silver Bullet H168
G97741 - DTG Linen H163
G97745 - DTG Plum H166
G97747 - DTG Sandstone H167
G97749 - DTG Moon Dust H164
G97755 - DTG Caribbean Coral H157
G97756 - DTG Sand Dune H181
G97757 - DTG Alpine White H183
G97758 - DTG Ivory Palace H185
G97759 - DTG Alabaster H189

Disclaimer

The data in this MSDS has been compiled from publicly available sources. This data relates only to the designated product and not to the use of said product in combination with other materials. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Responsibility for proper precautions and safe use of the product lies with the user. All data in this MSDS is typical of the product as a whole, and does not represent any individual lot or batch, therefore, Bostik, Inc. makes no warranty about the accuracy of the data herein and assumes no liability for the use of such data. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.

Further information

Any characters following an individual item number are just designations for the various types of packaging that are available for this product. For example, a product "G12345-XX" is item number "G12345" with a packaging designation of "XX". These characters do not indicate a different product nor a different regulatory, health, safety and/or environmental status. This document covers the item numbers listed above for all of their packaging types.

Issue date

02/21/2007

Prepared by

Pam Larsen

Supersedes

08/31/2006