Protectosil CHEM-TRETE PB 100
by Evonik Corporation

CLASSIFICATION: 07 19 00

PRODUCT DESCRIPTION: A clear, penetrating, breathable water repellent for use on exterior above-grade concrete masonry units, brick masonry and most natural stones. Provides resistance against water, alkali attack, acid rain and waterborne staining. Penetrates into the substrate and chemically bonds with silica to form a permanent attachment of the water repellent molecule. Protectosil CHEM-TRETE PB 100 is especially suited for making porous substrates such as split-face block water repellent. This water repellent effect stands up against wind-driven rain.

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Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting Format
- Nested Materials Method
- Basic Method

Threshold Disclosed Per
- Material
- Product

Threshold level
- 100 ppm
- 1,000 ppm
- Per GHS SDS
- Per OSHA MSDS
- Other

Residuals/Impurities
- Considered
- Partially Considered
- Not Considered

All Substances Above the Threshold Indicated Are:
- Characterized: Yes Ex/SC Yes No
  % weight and role provided for all substances.
- Screened: Yes Ex/SC Yes No
  All substances screened using Priority Hazard Lists with results disclosed.
- Identified: Yes Ex/SC Yes No
  One or more substances not disclosed by Name (Specific or Generic) and Identifier and/or one or more Special Condition did not follow guidance.

CONTENT IN DESCENDING ORDER OF QUANTITY

Summary of product contents and results from screening individual chemical substances against HPD Priority Hazard Lists and the GreenScreen for Safer Chemicals®. The HPD does not assess whether using or handling this product will expose individuals to its chemical substances or any health risk. Refer to Section 2 for further details.

MATERIAL | SUBSTANCE | RESIDUAL OR IMPURITY | GREENSCREEN SCORE | HAZARD TYPE
PROTECTOSIL CHEM-TRETE PB 100 | ALKYLTRIALKOXYLSILANE | LT-UNK | UNDISCLOSED | LT-P1

NOMINAL ORGANIC COMPOUND (VOC) CONTENT

Material (g/l): 375
Regulatory (g/l): 375

Does the product contain exempt VOCs: No
Are ultra-low VOC tints available: N/A

CERTIFICATIONS AND COMPLIANCE

See Section 3 for additional listings.

VOC emissions: EPA Method 24 - Volatile Matter Content (EPA 24)
VOC content: ASTM D5095

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients, Option 1 and Option 2

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VOLATILE ORGANIC COMPOUND (VOC) CONTENT

Material (g/l): 375
Regulatory (g/l): 375

Does the product contain exempt VOCs: No
Are ultra-low VOC tints available: N/A

CERTIFICATIONS AND COMPLIANCE

See Section 3 for additional listings.

VOC emissions: EPA Method 24 - Volatile Matter Content (EPA 24)
VOC content: ASTM D5095

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients, Option 1 and Option 2

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Third Party Verified?
- Yes
- No

PREPARER: Self-Prepared
VERIFIER:
VERIFICATION #:
Section 2: Content in Descending Order of Quantity

This section lists contents in a product based on specific threshold(s) and reports detailed health information including hazards. This HPD uses the inventory method indicated above, which is one of three possible methods:

- Basic Inventory method with Product-level threshold.
- Nested Material Inventory method with Product-level threshold
- Nested Material Inventory method with individual Material-level thresholds

Definitions and requirements for the three inventory methods and requirements for each data field can be found in the HPD Open Standard version 2.1.1, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-1-1-standard

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>PROTECTOSIL CHEM-TRETE PB 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRODUCT THRESHOLD:</td>
<td>100 ppm</td>
</tr>
<tr>
<td>RESIDUALS AND IMPURITIES CONSIDERED:</td>
<td>Yes</td>
</tr>
<tr>
<td>RESIDUALS AND IMPURITIES NOTES:</td>
<td>FTIR is used in the quality control process to check for residual compounds in this product.</td>
</tr>
<tr>
<td>OTHER PRODUCT NOTES:</td>
<td></td>
</tr>
<tr>
<td>Substance</td>
<td>HAZARD SCREENING METHOD</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>ALKYLTRIALKOXYSILANE</td>
<td>Pharos Chemical and Materials Library</td>
</tr>
<tr>
<td>TRIALKOXYSILANE</td>
<td>Pharos Chemical and Materials Library</td>
</tr>
<tr>
<td>UNDISCLOSED</td>
<td>Pharos Chemical and Materials Library</td>
</tr>
</tbody>
</table>
Section 3: Certifications and Compliance

This section lists applicable certification and standards compliance information for VOC emissions and VOC content. Other types of health or environmental performance testing or certifications completed for the product may be provided.

<table>
<thead>
<tr>
<th>VOC EMISSIONS</th>
<th>EPA Method 24 - Volatile Matter Content (EPA 24)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CERTIFYING PARTY:</td>
<td>Third Party</td>
</tr>
<tr>
<td>APPLICABLE FACILITIES:</td>
<td>All</td>
</tr>
<tr>
<td>ISSUE DATE:</td>
<td>2005-01-27</td>
</tr>
<tr>
<td>EXPIRY DATE:</td>
<td></td>
</tr>
<tr>
<td>CERTIFIER OR LAB:</td>
<td>DL Laboratories</td>
</tr>
</tbody>
</table>

VOC CONTENT

<table>
<thead>
<tr>
<th>VOC CONTENT</th>
<th>ASTM D5095</th>
</tr>
</thead>
<tbody>
<tr>
<td>CERTIFYING PARTY:</td>
<td>Third Party</td>
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</tbody>
</table>

Section 4: Accessories

This section lists related products or materials that the manufacturer requires or recommends for installation (such as adhesives or fasteners), maintenance, cleaning, or operations. For information relating to the contents of these related products, refer to their applicable Health Product Declarations, if available.

No accessories are required for this product.

Section 5: General Notes

No notes for this product at this time.
MANUFACTURER INFORMATION

MANUFACTURER: Evonik Corporation
ADDRESS: 2 Turner Pl
Piscataway NJ 08854, USA
WEBSITE: www.protectosil.com

CONTACT NAME: Maxwell McCarthy
TITLE: Scientist
PHONE: 7329815113
EMAIL: maxwell.mccarthy@evonik.com

KEY

OSHA MSDS Occupational Safety and Health Administration Material Safety Data Sheet
GHS SDS Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

Hazard Types

<table>
<thead>
<tr>
<th>Aquatic toxicity</th>
<th>Global warming</th>
<th>Physical Hazard (reactive)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>Mammalian/systemic/organ toxicity</td>
<td>Reproductive toxicity</td>
</tr>
<tr>
<td>Developmental toxicity</td>
<td>Multiple hazards</td>
<td>Respiratory sensitization</td>
</tr>
<tr>
<td>Endocrine activity</td>
<td>Neurotoxicity</td>
<td>Skin sensitization/irritation/corrosivity</td>
</tr>
<tr>
<td>Eye irritation/corrosivity</td>
<td>Ozone depletion</td>
<td>Land Toxicity</td>
</tr>
<tr>
<td>Gene mutation</td>
<td>Persistent Bioaccumulative Toxic</td>
<td>Not found on Priority Hazard Lists</td>
</tr>
</tbody>
</table>

GreenScreen (GS)

| BM-4 Benchmark 4 (prefer-safer chemical) | LT-P1 List Translator Possible Benchmark 1 |
| BM-3 Benchmark 3 (use but still opportunity for improvement) | LT-1 List Translator Likely Benchmark 1 |
| BM-2 Benchmark 2 (use but search for safer substitutes) | LT-UNK List Translator Benchmark Unknown (insufficient information from List Translator lists to benchmark) |
| BM-1 Benchmark 1 (avoid - chemical of high concern) | NoGS Unknown (no data on List Translator Lists) |

Recycled Types

PreC Preconsumer (Post-Industrial)
PostC Postconsumer
Both Both Preconsumer and Postconsumer
Unk Inclusion of recycled content is unknown
None Does not include recycled content

Other Terms

Inventory Methods:
- Nested Method / Material Threshold Substances listed within each material per threshold indicated per material
- Nested Method / Product Threshold Substances listed within each material per threshold indicated per product
- Basic Method / Product Threshold Substances listed individually per threshold indicated per product

Nano Composed of nano scale particles or nanotechnology
Third Party Verified Verification by independent certifier approved by HPDC
Preparer Third party preparer, if not self-prepared by manufacturer
Applicable facilities Manufacturing sites to which testing applies

The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. The HPD Open Standard v2.1 is not:

- a method for the assessment of exposure or risk associated with product handling or use,
- a method for assessing potential health impacts of: (i) substances used or created during the manufacturing process or (ii) substances created after the product is delivered for end use.

Information about life cycle, exposure and/or risk assessments performed on the product may be reported by the manufacturer in appropriate Notes sections, and/or, where applicable, in the Certifications section.

The HPD Open Standard was created and is supported by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry that is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.

The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and for compliance with the HPD standard noted.