Name: Vitrified Clay Products

Product ID: Vitrified Clay Pipe

Classification: 33 30 00.00 Utilities: Sanitary Sewerage Utilities

Website: www.ncpi.org

Manufacturer: National Clay Pipe Institute
Address: N6369 US Hwy 12
Suite A
Elkhorn, WI 53121

Contact Name: Jeff Boschert
Title: President
Phone: 3142293789
Email: jboschert@ncpi.org

Description: A pipe made from various clays or combinations thereof which are shaped, dried, and fired to a point where the glass-forming components fuse to form a bond between the crystalline grains.

Release Date: 2016-08-17
Expiry Date: 2019-08-17

SUMMARY DISCLOSURE

The content of this product was assessed for health hazard warnings as required using Pharos

Residuals Disclosure
- Measured 100 ppm (ideal)
- Measured 1000 ppm
- Predicted by process chemistry
- As per MSDS (1,000 & 10,000 ppm)
- Not disclosed
- Other

Full Disclosure of Intentional Ingredients
- Yes
- No

Full Disclosure of Known Hazards
- Yes
- No

Disclosure Notes

Contents in Descending Order of Quantity
Undisclosed (Clay and Shale), WATER, Ceramic materials and wares, chemicals, urethane dimethacrylate, BARIUM CARBONATE, STYRENE BUTADIENE RUBBER (SBR), POLYESTER, Steel, Wood Fiber - unspecified, (+)-menthyl acetate, Undisclosed (Latex)

Hazards
- PBT (Persistent Bioaccumulative Toxic)
- Cancer
- Gene Mutation
- Development
- Reproductive
- Endocrine
- Respiratory
- Neurotoxicity
- Mammal
- Skin or Eye
- Aquatic toxicity
- Land toxicity
- Physical hazard
- Global warming
- Ozone depletion
- Multiple
- Unknown

Total VOC Content
Material (g/L) N/A
Regulatory (g/L) N/A

Does the product contain exempt VOCs?
- Yes
- No

Are there VOC-free tints available?
- Yes
- No

Notes

Certifications + Compliance
VOC Emissions: Not tested
VOC Content: N/A

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Notes

Certifications + Compliance
VOC Emissions: Not tested
VOC Content: N/A
The HPD Standard is solely a declaration of product content and direct health hazards associated with exposure to its individual contents. It is not a full assessment of environmental impacts from the life cycle of this product. It is not an assessment of risks associated with actual use of the product. It does not address the potential health impacts of substances used or created during manufacture that do not appear in the final product as residuals, nor substances created during combustion or other degradation processes.

This Health Product Declaration was generated following the requirements of the noted Standard version and is valid for a total of three years after date of issue or three months after a substantive change of product contents occurs. Users should verify that this Health Product Declaration is compliant with the most current version of the HPD Standard. Accuracy of claims made in this Health Product Declaration is the sole responsibility of the listed manufacturer and certifier (if applicable). The HPD Collaborative does not warrant any claim made herein, explicit or implicit. The HPD Standard is an “open standard” developed and managed by the HPD Collaborative, a nonprofit organization. For more information, visit hpdcollaborative.org.

CONTENT IN DESCENDING ORDER OF QUANTITY

All ingredients must be assessed for health warnings against Priority Hazard Lists, regardless of disclosure level. Priority Hazard Lists and information on the GreenScreen Benchmarks can be found at www.hpdcollaborative.org/hazardlists.

GS: GreenScreen Benchmark; RC: Recycled Content, PC: Post Consumer, PI: Post Industrial (Pre-consumer), BO: Both; Nano: comprised of nanoscale particles or nanotechnology

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS RN</th>
<th>% weight</th>
<th>GS</th>
<th>RC</th>
<th>Nano</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Warning A</td>
</tr>
<tr>
<td>Hazard B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Warning B</td>
</tr>
<tr>
<td>Hazard C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Warning C</td>
</tr>
<tr>
<td>Hazard D</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Warning D</td>
</tr>
<tr>
<td>Hazard E</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Warning E</td>
</tr>
<tr>
<td>Undisclosed (Clay and Shale)</td>
<td>Unknown</td>
<td>94 %</td>
<td>N</td>
<td>N</td>
<td></td>
<td>Primary raw material which is quarried and brought to VCP facilities.</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not disclosed</td>
</tr>
<tr>
<td>WATER</td>
<td>7732-18-5</td>
<td>9.6 %</td>
<td>4</td>
<td>N</td>
<td>N</td>
<td>Used in the extrusion process to form the pipe but removed during drying and kiln firing.</td>
</tr>
<tr>
<td>Ceramic materials and wares, chemicals</td>
<td>107539-20-8</td>
<td>4.6 %</td>
<td>LT-U</td>
<td>BO</td>
<td>U</td>
<td>“Grog” is unusable kiln fired vitrified clay which is purchased and put back into the manufacture of new product. Grog is sent back to the grinding operation and is recycled back through the process.</td>
</tr>
<tr>
<td>urethane dimethacrylate</td>
<td>72869-86-4</td>
<td>0.66 %</td>
<td>LT-U</td>
<td>N</td>
<td>N</td>
<td>Urethane material for compression joints</td>
</tr>
<tr>
<td>BARIUM CARBONATE</td>
<td>513-77-9</td>
<td>0.19 %</td>
<td>LT-U</td>
<td>N</td>
<td>N</td>
<td>process additive to ensure uniform color after firing</td>
</tr>
</tbody>
</table>

Notes

None found No warnings found on HPD Priority lists

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<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS Number</th>
<th>Concentration</th>
<th>LT-U</th>
<th>N</th>
<th>N</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>STYRENE BUTADIENE RUBBER (SBR)</td>
<td>9003-55-8</td>
<td>0.14 %</td>
<td></td>
<td></td>
<td>N</td>
<td>Rubber Couplings to join plain end pipe barrels. Also used as the elastomer for the jacking pipe joint</td>
</tr>
</tbody>
</table>
| None found                      |            |               |      |     |     | None found
| No warnings found on HPD Priority lists |
| POLYESTER                       | 113669-95-7| 0.08 %        |      |     | N   | Polyester material for compression joints                                  |
| None found                      |            |               |      |     |     | None found
| No warnings found on HPD Priority lists |
| Steel                           | 12597-69-2 | 0.07 %        |      |     | N   | Stainless Steel (Series 316) is utilized as the collar material on the specialized jacking pipe |
| None found                      |            |               |      |     |     | None found
| No warnings found on HPD Priority lists |
| Wood Fiber - unspecified        |            | 0.04 %        |      | N   | N   | Particle board is used at pipe ends on the jacking pipes to transfer axial forces during installation |
| None found                      |            |               |      |     |     | None found
| No warnings found on HPD Priority lists |
| (++)-menthyl acetate            | 29066-34-0 | 0.01 %        | LT-P1| N   | N   | Primer applied to vitrified body to ensure adhesion of jointing materials |
| MULTIPLE                        | VwVwS: Class 2 Hazard to Waters |
| Undisclosed (Latex)             | Unknown    | 0.01 %        |      | N   | N   | process additive- some of our factories apply this latex liquid on the bell ends after extrusion to ensure uniform drying prior to the firing process |
| Unknown                         |            |               |      |     |     | process additive- some of our factories apply this latex liquid on the bell ends after extrusion to ensure uniform drying prior to the firing process |

**CERTIFICATIONS AND COMPLIANCE**

Certifying Party = First: Manufacturer’s self-declaration; Second: Verification by trade association or other interested party; Third: Verification by independent certifier (ideal).

Applicable facilities = Manufacturing sites to which testing applies.

<table>
<thead>
<tr>
<th>Type</th>
<th>Standard or Certification</th>
<th>Certifier or Laboratory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certifying Party</td>
<td>Issue Date</td>
<td>Expiry Date</td>
</tr>
<tr>
<td>Applicable Facilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Notes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VOC Emissions</td>
<td>Not tested</td>
<td></td>
</tr>
</tbody>
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ACCESSORY MATERIALS
This section is for additional products required by warranty or recommended by the manufacturer for installation (such as adhesives, fasteners, or factory coatings) or for maintenance, cleaning, or operations. Refer to Health Product Declarations, published separately, for a complete view of these products. Note: This declaration is not intended to address hazards of the installation process.

<table>
<thead>
<tr>
<th>Required or Recommended Product</th>
<th>URL for Companion Health Product Declaration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetable Oil Based Soap</td>
<td></td>
</tr>
<tr>
<td>Lubricates pipe gaskets for safe and efficient assembly. Supplied in a paste or liquid; is a stable blend of vegetable oil, soaps and surfactants with no petroleum additives.</td>
<td>mts.sustainableproducts.com/SMaRT_Certified.html#nogo</td>
</tr>
</tbody>
</table>

NOTES
NCPI Manufacturers: Gladding McBean; Logan Clay Products Company; Building Products Company; Mission Clay Products. Our manufacturers are proud to provide the longest lasting, most durable and sustainable sewer pipe ever produced.