**DESCRIPTION**

CellGuard OP is a concentrated, stabilized aqueous suspension of magnesium hydroxide with excellent flow and storage properties. CellGuard OP is a synthetic chemical produced from magnesium-rich brine and dolomitic lime. It contains lower levels of transition metals as compared to naturally occurring minerals.

**USES**

CellGuard OP can be used as a cellulose protector in oxygen bleaching systems, as an alkali source in mechanical and recycled pulp peroxide bleaching, and as a partial substitute for caustic soda in the extraction stage of chemical pulp bleaching.

**CHEMICAL AND PHYSICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Typical</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aqueous Suspension</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dry Solids, %</td>
<td>60.0</td>
<td>58.5 min.</td>
</tr>
<tr>
<td>Bulk Density, lb/gal</td>
<td>12.8</td>
<td>12.6 min.</td>
</tr>
<tr>
<td>Mg(OH)₂, Contained, lb/gal</td>
<td>7.7</td>
<td>---</td>
</tr>
<tr>
<td>Viscosity, (Brookfield VT, 100 rpm), cps</td>
<td>200</td>
<td>70 - 600</td>
</tr>
<tr>
<td>Freeze Point, °C</td>
<td>0</td>
<td>---</td>
</tr>
<tr>
<td><strong>Dry Solids Basis</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mg(OH)₂ purity, %</td>
<td>98.8</td>
<td>98.6 min.</td>
</tr>
<tr>
<td>Fe, %</td>
<td>0.07</td>
<td>0.14 max</td>
</tr>
<tr>
<td>Mn, ppm</td>
<td>100</td>
<td>120 max.</td>
</tr>
<tr>
<td>Cu, ppm</td>
<td>1</td>
<td>10 max.</td>
</tr>
<tr>
<td>Median Particle Size, microns</td>
<td>3</td>
<td>---</td>
</tr>
<tr>
<td>% Passing 325 mesh</td>
<td>99.9</td>
<td>99.0 min.</td>
</tr>
</tbody>
</table>

**EQUIVALENTS**

(All Chemicals Shown on 100% basis)

- MgSO₄ = 1.00 lb Equivalent to 0.48 lb Mg(OH)₂
- NaOH = 1.00 lb Equivalent to 0.73 lb Mg(OH)₂

**PACKAGING**

Martin Marietta Magnesia Specialties offers its magnesium hydroxide slurry products in bulk shipments (railcar and truck) only. Tote and drum quantities can be supplied by Martin Marietta authorized distributors.

**STORAGE**

Mild steel vessels. Extended storage requires intermittent mixing and freeze protection.

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