**EVERNOX® B1411, B1412**

Synergistic Blends of Phenolic and Phosphite Antioxidants

**Description**
EVERNOX B1411 and B1412 are processing and long-term thermal stabilizer systems and provide a synergistic blend of EVERFOS-168 (CAS No. 31570-04-4), and EVERNOX-3114 (CAS No. 27676-62-6) at various ratios. High performance phenolic antioxidant & processing stabilizer blends which give long-term heat stability and processing stability in one package and simplify manufacturing operations. The significant advantages such as
- Low color formation
- Increase of long-term thermal stability
- Keep original melt flow

**Applications**
EVERNOX B1411 and B1412 are mainly used in polypropylene and polypropylene copolymers for the stabilization of fibers, filled grades, molded articles, etc. The blend can also be used in polyethylenes and polyethylene copolymers and in other polymers such as engineering plastics, styrene homo- and copolymers, polyurethanes, elastomers, adhesives, and other organic substrates.

**Products of B-blends**
The available EVERNOX B-blends are listed below also showing the ratios of EVERFOS-168 with EVERNOX-3114 and key applications.

<table>
<thead>
<tr>
<th>Evernox</th>
<th>Phosphite Stabilizer</th>
<th>Phenolic Antioxidant</th>
<th>Ratio</th>
<th>Key Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1411</td>
<td>Everfos-168</td>
<td>Evernox-3114</td>
<td>1:1</td>
<td>PE/PP/ for stabilization.</td>
</tr>
<tr>
<td>B1412</td>
<td>Everfos-168</td>
<td>Evernox-3114</td>
<td>2:1</td>
<td>PE/PP/ for stabilization.</td>
</tr>
</tbody>
</table>

**Recommendation for use**
In polyolefins, the dosage levels for EVERNOX B1411 and B1412 are between 0.1% to 0.25% depending on polymers and processing conditions. The optimum level is various of application specific needs.
Handling & Safety  EVERNOX B1411 and B1412 require no special safety measures provided the usual precautions for handling chemicals are observed. Avoid dust formation and ignition sources. For more detailed information please refer to the material safety data sheet.

Packing  EVERNOX B1411 and B1412 standard package is
(1) 20 kgs paper bag.
(2) 25 kgs × 2 PE bag in the carton box.
(3) 50 kgs fiber drum.
(4) Other specific request.

Transportation  EVERNOX B1411 and B1412 are not dangerous goods according to the regulations.

Storage  EVERNOX B1411 and B1412 be stored under suitable conditions (dry & cool). Maximum recommended storage time from the date of analysis：24 months.