EVERNOX®-B1411
Synergistic Processing and Long-Term Thermal Stabilization

Chemical Name
50% EVERFOS-168: Tris (2,4-di-tert-butylphenyl) phosphite
50% EVERNOX-3114: Tris-(3,5-di-tert-butyl-4-hydroxybenzyl)-isocyanurate

Formula
50% C_{42}H_{63}O_3P (EVERFOS-168)
50% C_{48}H_{69}N_3O_6 (EVERNOX-3114)

Structure

![Structure of EVERFOS-168 and EVERNOX-3114]

Molecular Weight
646.9
784

CAS Number
31570-04-4
27676-62-6

Specification

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White, free-flowing powder for EVERNOX-B1411</td>
</tr>
<tr>
<td>Ash content</td>
<td>0.1% max</td>
</tr>
<tr>
<td>Volatiles</td>
<td>0.5% max</td>
</tr>
<tr>
<td>Clarity of solution (10g in 100ml toluene)</td>
<td>Clear solution</td>
</tr>
<tr>
<td>Transmittance (10g in 100 ml toluene)</td>
<td>at 425 nm 97.0% min</td>
</tr>
<tr>
<td>Assay</td>
<td>EVERFOS-168 48.0-52.0%</td>
</tr>
<tr>
<td></td>
<td>EVERNOX-3114 48.0-52.0%</td>
</tr>
</tbody>
</table>

Physical Properties

<table>
<thead>
<tr>
<th>Physical Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting range (°C)</td>
<td>185-223°C</td>
</tr>
<tr>
<td>Flash point (°C)</td>
<td>&gt;150°C</td>
</tr>
</tbody>
</table>
Applications
EVERNOX-B1411 and are used in polyolefins and olefins-copolymers such as LDPE, HDPE, LLDPE, PP and EVA. It can also be used in other polymers such as engineering plastics, styrene homo and copolymers such as PBT, PET, PA, POM, PS, ABS, PUR, elastomers BR, SBR, SBS, adhesives and other organic substrates. The B-blends can be used in combination with light stabilizers of UV-absorbers and hindered amine light stabilizers.

Recommendation for use
In polyolefins, the dosage levels for EVERNOX-B1411 is 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 should be handled with care and prevent contamination of the environment. Avoid dust formation and ignition sources.
For more detailed information please refer to the material safety data sheet.

Packing
The following packages are available upon customer’s request:
(1) 20 kgs x2 PE bags in the carton box.
(2) 25 kgs x2 PE bags in the carton box.
(3) 50 kgs fiber drum.
(4) Other specific request.

Transportation
EVERNOX-B1411 is not dangerous materials according to the transportation regulations.

Storage
EVERNOX-1411 should be stored under suitable conditions (dry & cool). Maximum recommended storage temperature under 45℃ and the storage time from the date of analysis : 24 months.