Alternative Plasticizer Solutions
Geon™ Non-Phthalate and Geon™ CPSIA-Compliant Compounds

Product Description
Geon™ Non-Phthalate and CPSIA-Compliant Flexible Vinyl Compounds offer alternative solutions for markets and applications affected by state and national legislation as well as changing public perceptions. These non-phthalate and regulatory-compliant compounds offer a wide range of flexibility and excellent performance characteristics. Geon compounds can be injection-molded or extruded, and can be custom formulated to meet specific requirements. Geon Non-Phthalate and Geon CPSIA-Compliant compounds are each classified as a PolyOne Sustainable Solution.

Value Solution
Meet the changing demands of the marketplace
Certain classes of phthalate plasticizers are being regulated by the federal government. In addition, phthalate plasticizers are under attack by consumer groups, who have concerns regarding phthalate’s perceived impact on long-term health. In response to these concerns, brand owners are aiming to offer solutions that are compliant with these regulations or eliminate the use of phthalate plasticizers altogether in the manufacture of their products. To achieve the first goal, manufactures need a reliable source of viable alternatives to service their customers.

Several alternative plasticizers available today can respond to this challenge. In all cases, the decision as to which alternative plasticizer should be used requires careful consideration of the specific end product, its requirements and intended use.

As the market-leading manufacturer of vinyl compounds, PolyOne has years of experience in the use of alternative plasticizers. PolyOne has the expertise and knowledge to formulate and manufacture customized vinyl solutions that enable customers to respond to changing market dynamics while continuing to meet their products’ performance requirements.

The use of Geon compounds can provide several benefits to manufacturers impacted by CPSIA or other market demands:

- Allows manufacturers to leverage PolyOne’s expertise to quickly and confidently respond to these growing concerns, thereby protecting the value of their brand.

- PolyOne’s No Surprises Pledge™ means the manufacturer will consistently receive materials that meet and perform to their specifications.
Key Characteristics

Geon™ Non-Phthalate or CPSIA-Compliant compounds are available for all conventional flexible vinyl applications. PolyOne’s extensive technical expertise in the formulation of specialty compounds for specific applications can prove invaluable as companies work to determine how to address market demands. The primary features and benefits of these flexible vinyl compounds are:

<table>
<thead>
<tr>
<th>Geon Non-Phthalate Compounds</th>
<th>Geon CPSIA-Compliant Compounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-phthalate raw materials</td>
<td>CPSIA-compliant raw materials</td>
</tr>
<tr>
<td>Broad hardness range (55A through 95A)</td>
<td>Broad hardness range (55A through 95A)</td>
</tr>
<tr>
<td>Transparent or opaque colors</td>
<td>Transparent or opaque colors</td>
</tr>
<tr>
<td>High gloss, low gloss or matte surface</td>
<td>High gloss, low gloss or matte surface</td>
</tr>
<tr>
<td>Excellent chemical resistance</td>
<td>Excellent chemical resistance</td>
</tr>
<tr>
<td>Meet codes &amp; regulatory requirements (FDA, USP Class VI, and gamma sterilizable grades available)</td>
<td>Meet codes &amp; regulatory requirements (CPSIA; FDA grades available)</td>
</tr>
<tr>
<td>Excellent physical property matrix</td>
<td>Excellent physical property matrix</td>
</tr>
</tbody>
</table>

Markets and End-Use Applications

Geon™ Non-Phthalate and Geon CPSIA-Compliant compounds are an excellent choice for applications including:

Healthcare
  Tubing, fluid administration bags, catheters, face masks, and other disposable and non-disposable medical devices; FDA, USP Class VI, and gamma sterilizable grades available

Consumer
  Toys, child care articles, children’s sports or outdoor equipment, and other items needing to conform to retailer requirements

Packaging
  Food, bottle cap seals & gaskets, FDA food grade applications

Appliances
  Small appliance gaskets, refrigerator gaskets, blender lids

Building & Construction
  Office furniture, wall protection systems, seals and gaskets

CONTACT INFORMATION

PolyOne Americas
33587 Walker Road
Avon Lake, Ohio 44012
United States
+1 440 930 1000

PolyOne Asia
Guoshoujing Road No. 88
Z.J Hi-Tech Park, Pudong
Shanghai, 201203, China
+86 (0) 21 5080 1188

PolyOne Europe
Rue Melville Wilson 2
5330 Assesse, Belgium
+32 (0) 83 660 211

PolyOne makes no representations, guarantees, or warranties of any kind with respect to the information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as “typical” or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the information. PolyOne makes no warranties or guarantees respecting suitability of either PolyOne’s products or the information for your process or end-use application. You have the responsibility to conduct full-scale endproduct performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the information and/or use or handling any product. POLYONE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the information or products reflected by the information. This literature shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.