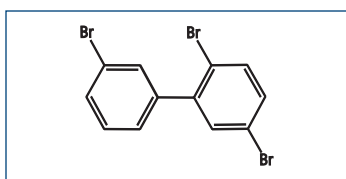




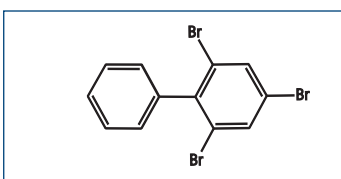
May 29 2006

## NEW POLYBROMINATED BIPHENYLS; NATIVE AND MASS-LABELLED

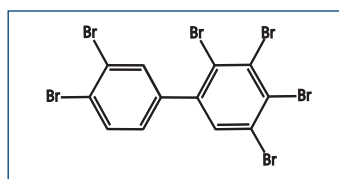
On July 1st of this year, Directive 2002/95/EC of the European Parliament and the Council of the European Union concerning the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) becomes enforceable. The RoHS Regulations ban the placing of new Electrical and Electronic Equipment (EEE) into the European Union marketplace which contains more than established levels of certain hazardous substances.



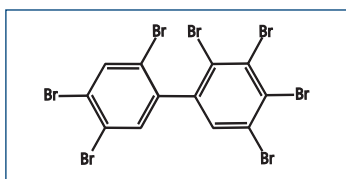
**BB-26**



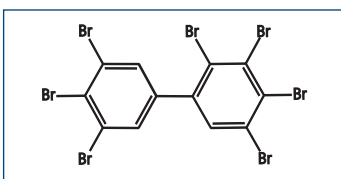
**BB-30**



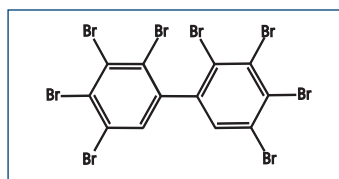
**BB-156**



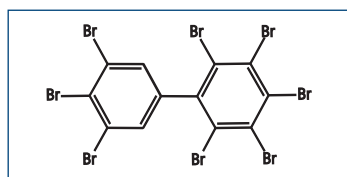
**BB-180**



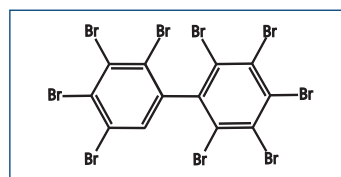
**BB-189**



**BB-194**



**BB-205**



**BB-206**

Polybrominated Biphenyls (PBBs), a class of Brominated Flame Retardants, are among the compounds to be covered by these regulations. PBBs will have a maximum allowable limit of 0.1% by weight in homogeneous materials permitted in the manufacture of new EEE.

**WELLINGTON** is now introducing 8 New Native PBB reference standards the structures of which are shown above. We have also prepared a Native PBB Congener Solution/Mixture (**PBB-MXA**) which contains isomers (in particular, the tetra through deca) that can be found in many of the commercial PBB mixes. **WELLINGTON** is also now able to supply reference standard solutions for 2 of the Technical PBB formulations.

*In addition, **WELLINGTON** is now able to supply a Mass-Labelled Octabromobiphenyl.*

An updated listing of our PBB product line is attached.

Please contact your local distributor or [info@well-labs.com](mailto:info@well-labs.com) for pricing and delivery.

**AND...Please continue to visit our website ([www.well-labs.com](http://www.well-labs.com)) for a complete listing of new product releases.**

ISO 9001:2000



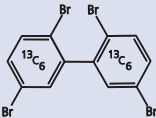
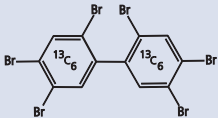
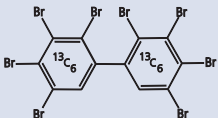
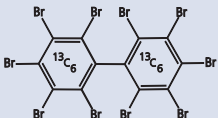
0008388:1039334

## NATIVE BROMINATED BIPHENYLS (PBBs)

| Catalogue Number | Product (nonane solution)               | Qty/Conc        |
|------------------|---|-----------------|
| <b>BB-1</b>      | 2-Bromobiphenyl                         | 1.2 ml 50 µg/ml |
| <b>BB-2</b>      | 3-Bromobiphenyl                         | 1.2 ml 50 µg/ml |
| <b>BB-3</b>      | 4-Bromobiphenyl                         | 1.2 ml 50 µg/ml |
| <b>BB-4</b>      | 2,2'-Dibromobiphenyl                    | 1.2 ml 50 µg/ml |
| <b>BB-7</b>      | 2,4-Dibromobiphenyl                     | 1.2 ml 50 µg/ml |
| <b>BB-9</b>      | 2,5-Dibromobiphenyl                     | 1.2 ml 50 µg/ml |
| <b>BB-10</b>     | 2,6-Dibromobiphenyl                     | 1.2 ml 50 µg/ml |
| <b>BB-15</b>     | 4,4'-Dibromobiphenyl                    | 1.2 ml 50 µg/ml |
| <b>BB-18</b>     | 2,2',5-Tribromobiphenyl                 | 1.2 ml 50 µg/ml |
| <b>BB-22</b>     | 2,3,4'-Tribromobiphenyl                 | 1.2 ml 50 µg/ml |
| <b>BB-26</b>     | 2,3',5-Tribromobiphenyl                 | 1.2 ml 50 µg/ml |
| <b>BB-29</b>     | 2,4,5-Tribromobiphenyl                  | 1.2 ml 50 µg/ml |
| <b>BB-30</b>     | 2,4,6-Tribromobiphenyl                  | 1.2 ml 50 µg/ml |
| <b>BB-31</b>     | 2,4',5-Tribromobiphenyl                 | 1.2 ml 50 µg/ml |
| <b>BB-37</b>     | 3,4,4'-Tribromobiphenyl                 | 1.2 ml 50 µg/ml |
| <b>BB-38</b>     | 3,4,5-Tribromobiphenyl                  | 1.2 ml 50 µg/ml |
| <b>BB-49</b>     | 2,2',4,5'-Tetrabromobiphenyl            | 1.2 ml 50 µg/ml |
| <b>BB-52</b>     | 2,2',5,5'-Tetrabromobiphenyl            | 1.2 ml 50 µg/ml |
| <b>BB-53</b>     | 2,2',5,6'-Tetrabromobiphenyl            | 1.2 ml 50 µg/ml |
| <b>BB-56</b>     | 2,3,3',4'-Tetrabromobiphenyl            | 1.2 ml 50 µg/ml |
| <b>BB-75</b>     | 2,4,4',6-Tetrabromobiphenyl             | 1.2 ml 50 µg/ml |
| <b>BB-77</b>     | 3,3',4,4'-Tetrabromobiphenyl            | 1.2 ml 50 µg/ml |
| <b>BB-80</b>     | 3,3',5,5'-Tetrabromobiphenyl            | 1.2 ml 50 µg/ml |
| <b>BB-101</b>    | 2,2',4,5,5'-Pentabromobiphenyl          | 1.2 ml 50 µg/ml |
| <b>BB-103</b>    | 2,2',4,5',6-Pentabromobiphenyl          | 1.2 ml 50 µg/ml |
| <b>BB-153</b>    | 2,2',4,4',5,5'-Hexabromobiphenyl        | 1.2 ml 50 µg/ml |
| <b>BB-154</b>    | 2,2',4,4',5,6'-Hexabromobiphenyl        | 1.2 ml 50 µg/ml |
| <b>BB-155</b>    | 2,2',4,4',6,6'-Hexabromobiphenyl        | 1.2 ml 50 µg/ml |
| <b>BB-156</b>    | 2,3,3',4,4',5-Hexabromobiphenyl         | 1.2 ml 50 µg/ml |
| <b>BB-169</b>    | 3,3',4,4',5,5'-Hexabromobiphenyl        | 1.2 ml 50 µg/ml |
| <b>BB-180</b>    | 2,2',3,4,4',5,5'-Heptabromobiphenyl     | 1.2 ml 50 µg/ml |
| <b>BB-189</b>    | 2,3,3',4,4',5,5'-Heptabromobiphenyl     | 1.2 ml 50 µg/ml |
| <b>BB-194</b>    | 2,2',3,3',4,4',5,5'-Octabromobiphenyl   | 1.2 ml 50 µg/ml |
| <b>BB-205</b>    | 2,3,3',4,4',5,5',6-Octabromobiphenyl    | 1.2 ml 50 µg/ml |
| <b>BB-206</b>    | 2,2',3,3',4,4',5,5',6-Nonabromobiphenyl | 1.2 ml 50 µg/ml |
| <b>BB-209</b>    | Decabromobiphenyl                       | 1.2 ml 50 µg/ml |



## MASS-LABELLED BROMINATED BIPHENYLS

| Catalogue Number | Product   |
|------------------|---|
| <b>MBB-52</b>    |  <p>2,2',5,5'-Tetrabromo[<sup>13</sup>C<sub>12</sub>]biphenyl<br/>1.2 ml; 50 µg/ml (±2.5 µg/ml); in nonane;<br/>Isotopic purity; 99% or greater</p>          |
| <b>MBB-153</b>   |  <p>2,2',4,4',5,5'-Hexabromo[<sup>13</sup>C<sub>12</sub>]biphenyl<br/>1.2 ml; 50 µg/ml (±2.5 µg/ml); in nonane;<br/>Isotopic purity; 99% or greater</p>      |
| <b>MBB-194</b>   |  <p>2,2',3,3',4,4',5,5'-Octabromo[<sup>13</sup>C<sub>12</sub>]biphenyl<br/>1.2 ml; 50 µg/ml (±2.5 µg/ml); in nonane;<br/>Isotopic purity; 99% or greater</p> |
| <b>MBB-209</b>   |  <p>Decabromo[<sup>13</sup>C<sub>12</sub>]biphenyl<br/>1.2 ml; 50 µg/ml (±2.5 µg/ml); in nonane;<br/>Isotopic purity; 99% or greater</p>                     |

## NATIVE BROMINATED BIPHENYLS: SOLUTION/MIXTURE

| Catalogue Number | Product (nonane solution)               | Qty/Conc |
|------------------|---|----------|
| <b>PBB-MXA</b>   | Native PBB Solution/Mixture             | 1.2 ml   |
|                  | <b>IUPAC</b>                            |          |
|                  | 4-Bromobiphenyl                         | 3        |
|                  | 4,4'-Dibromobiphenyl                    | 15       |
|                  | 2,2',5-Tribromobiphenyl                 | 18       |
|                  | 2,2',5,5'-Tetrabromobiphenyl            | 52       |
|                  | 2,2',4,5,5'-Pentabromobiphenyl          | 101      |
|                  | 2,2',4,4',5,5'-Hexabromobiphenyl        | 153      |
|                  | 2,2',3,4,4',5,5'-Heptabromobiphenyl     | 180      |
|                  | 2,2',3,3',4,4',5,5'-Octabromobiphenyl   | 194      |
|                  | 2,2',3,3',4,4',5,5',6-Nonabromobiphenyl | 206      |
|                  | Decabromobiphenyl                       | 209      |
|                  |   | 5 µg/ml  |

## POLYBROMINATED BIPHENYL TECHNICAL MIXTURES: SOLUTIONS

| Catalogue Number | Product (nonane solution)                               | Qty/Conc         |
|------------------|---|------------------|
| <b>TBB-BP6</b>   | Great Lakes Chemical Firemaster BP-6™ Hexabromobiphenyl | 1.2 ml 100 µg/ml |
| <b>TBB-809D</b>  | Chemische Fabrik Kalk Bromkal80-9D™ Nonabromobiphenyl   | 1.2 ml 100 µg/ml |

