TRIMETHYL BORATE™ PURE

Description

TRIMETHYL BORATE is a water-white liquid. It is miscible with most organic liquids such as tetrahydrofuran, diethyl ether, methanol, hexane and toluene. It hydrolyzes readily in the presence of water to boric acid and methanol.

Typical Properties

These properties are typical but do not constitute specifications.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>B(OCH₃)₃</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>103.92</td>
</tr>
<tr>
<td>Titer</td>
<td>min. 99%</td>
</tr>
<tr>
<td>CAS No.</td>
<td>121-43-7</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.91 @ 20°C</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>67-69°C</td>
</tr>
<tr>
<td>Melting Point</td>
<td>-29°C</td>
</tr>
<tr>
<td>Flash Point</td>
<td>-9 to +2°C (Setaflash Closed Cup)</td>
</tr>
</tbody>
</table>

Application

TRIMETHYL BORATE (TMB) is well established as a precursor in the production of boronic acids/esters, intermediates of the well-known Suzuki couplings.

In addition to the standard (min. 99% pure) TMB quality, Rohm and Haas has developed higher quality grades, which are available upon request. Indeed, in the synthesis of boronic acids/esters for Suzuki couplings, it is imperative that the TMB precursor is free of protic traces (from water, methanol, ...). The lack of any moisture or alcohol residue in Rohm and Haas’ higher-quality grade of TMB, may result in a significant yield improvement of a given boronic intermediate synthesis.

Shipping

TRIMETHYL BORATE is shipped in non-returnable metal drums of various size, as well as 1,000L containers. Shipment is governed by US DOT regulations 173.119.

Product Stewardship

Rohm and Haas sells TRIMETHYL BORATE as part of a comprehensive Product & Services package, including:
- high standard TMB product quality
- higher-than-99% purity grades available upon request
- the availability of a choice of package sizes
- safety audits and training
- technical advice with regards to both the safe handling and the cost-efficient synthetic use

Handling and Storage

TMB is stable in the absence of moisture. It hydrolyses in the presence of water, depositing finely divided crystals of boric acid. When protected from air and moisture, TMB is stable indefinitely.

TMB is an inherent source of methanol – upon hydrolysis with water, TMB yields both boric acid and methanol. Methanol is toxic when absorbed through the skin, and it can cause blindness upon ingestion. Personnel handling TMB should wear safety goggles, impervious gloves and coveralls or appropriate chemical resistant suits.
TRIMETHYL BORATE is a registered trademark of Rohm and Haas Company or its subsidiaries or affiliates.

To the best of our knowledge the information contained herein is correct. All products may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the product is the sole responsibility of the user. Users of the product should satisfy themselves that the conditions and methods of use assure that the product is used safely.

No representations or warranties, either express or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to the information contained herein or the product to which the information refers.

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