Ureido Methacrylate
25% in Methyl Methacrylate (UMA 25%)

Methacrylic acid ester, for manufacturing polymers and for use as a feed stock for syntheses

Molecular formula: \( \text{C}_9\text{H}_{14}\text{N}_2\text{O}_3 \)

Molar mass: 198.2 kg/kmol

Product specification

<table>
<thead>
<tr>
<th>Property</th>
<th>Specification</th>
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<tbody>
<tr>
<td>Assay (Gas chromatography)</td>
<td>25 ± 2 % in MMA</td>
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<tr>
<td>Water content (ASTM E 203)</td>
<td>max. 1.0 %</td>
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<tr>
<td>Color on dispatch (APHA, ASTM D 1209)</td>
<td>max. 200</td>
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<td>Turbidity (ex works)</td>
<td>clear</td>
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<tr>
<td>Standard stabilization (HPLC)</td>
<td>75 ± 25 ppm PTZ</td>
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<td>500 ± 100 ppm MEHQ</td>
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The aforementioned data shall constitute the agreed contractual quality of the product at the time of passing of risk. The data are controlled at regular intervals as part of our quality assurance program. Neither these data nor the properties of product specimens shall imply any legally binding guarantee of certain properties or of fitness for a specific purpose. No liability of ours can be derived therefrom.

Other properties

- Appearance: clear, yellowish
- Physical form: liquid
- Odor: ester-like, mild pungent
- Density at 15 °C (of MMA): 1.015 g/cm³
- Flash point (of MMA): 9 °C
- Ignition point (of MMA): 430 °C
- Vapor pressure at 20 °C (of MMA): 37 mbar

Labelling according to local Directives

see SDS
Applications

Ureido Methacrylate 25% in Methyl Methacrylate (UMA 25%) forms homopolymers and copolymers. Copolymers of Ureido Methacrylate 25% in Methyl Methacrylate (UMA 25%) can be prepared with acrylic acid and its salts, amides and esters, and with methacrylates, acrylonitrile, maleic acid esters, vinyl acetate, vinyl chloride, vinlylidene chloride, styrene, butadiene, unsaturated polyesters and drying oils, etc.

Ureido Methacrylate 25% in Methyl Methacrylate (UMA 25%) is also a very useful feedstock for chemical syntheses, because it readily undergoes addition reactions with a wide variety of organic and inorganic compounds.

Features & Benefits

Ureido Methacrylate 25% in Methyl Methacrylate (UMA 25%) can be used to impart the following properties to polymers:

- Crosslinking
- Adhesion
- Rheology modifier

Storage & Handling

In order to prevent polymerization, Ureido Methacrylate 25% in Methyl Methacrylate (UMA 25%) must always be stored under air, and never under inert gases. The presence of oxygen is required for the stabilizer to function effectively. It has to contain a stabilizer and the storage temperature must not exceed 35 °C or drop below 10 °C in order to avoid precipitation. Under these conditions, a storage stability of one year can be expected upon delivery. In order to minimize the likelihood of overstorage, the storage procedure should strictly follow the “first-in-first-out” principle. For extended storage periods over 4 weeks it is advisable to replenish the dissolved oxygen content.

Storage tanks and pipes should be made of stainless steel or aluminium. Regulations for the storage of flammable liquids must be observed (explosion-proof electrical equipment, vented tanks with flame arresters etc.). Storage tanks, pumps and pipes should be earthed.

Safety

A Safety Data Sheet has been compiled for Ureido Methacrylate 25% in Methyl Methacrylate (UMA 25%) that contains up-to-date information on questions relevant to safety.

Note

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.

April 2016