Ethyldiglycol Acrylate (EDGA)

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

\[ \text{H}_2\text{C}==\text{CH}==\text{C}==\text{O}==\text{CH}==\text{H}==\text{CH}==\text{O}==\text{CH}==\text{H}==\text{CH}==\text{O}==\text{CH}==\text{H}==\text{CH}_3 \]

CAS No.: 7328-17-8
EINECS No.: 230-811-7

Molecular formula: C₉H₁₆O₄
Molar mass: 188.3 kg/kmol

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ester content (Gas chromatography)</td>
<td>min. 90 %</td>
</tr>
<tr>
<td>Water content (ASTM E 203)</td>
<td>max. 0.1 %</td>
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<tr>
<td>Acid content (calc. as acrylic acid)</td>
<td>max. 0.1 %</td>
</tr>
<tr>
<td>(ASTM D 1613)</td>
<td></td>
</tr>
<tr>
<td>Color on dispatch</td>
<td>max. 150</td>
</tr>
<tr>
<td>(APHA, ASTM D 1209)</td>
<td></td>
</tr>
<tr>
<td>Standard stabilization (ASTM D 3125)</td>
<td>1000 ± 200 ppm MEHQ</td>
</tr>
<tr>
<td></td>
<td>1000 ± 200 ppm BHT</td>
</tr>
</tbody>
</table>

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, colorless
Physical form: liquid
Odor: ester-like
Density at 25 °C: 1.0028 g/cm³
Refractive index nD at 20 °C: 1.438
Boiling point: 95 °C at 5 hPa
Freezing point: −61.9 °C
Viscosity at 25 °C: approx. 5 mPa · s
Vapor pressure at 38.9 °C: 0.153 mbar

Labelling according to local Directives
see SDS
Applications

Ethyldiglycol Acrylate (EDGA) forms homopolymers and copolymers. Copolymers of Ethyldiglycol Acrylate (EDGA) can be prepared with acrylic acid and its salts, amides and esters, and with methacrylates, acrylonitrile, maleic acid esters, vinyl acetate, vinyl chloride, vinylidene chloride, styrene, butadiene, unsaturated polyesters and drying oils, etc. Ethyldiglycol Acrylate (EDGA) 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

Ethyldiglycol Acrylate (EDGA) can be used to impart the following properties to polymers:

- Adhesion
- Low VOC

Storage & Handling

In order to prevent polymerization, Ethyldiglycol Acrylate (EDGA) 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. 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 aluminum. Storage tanks, pumps and pipes should be earthed.

Safety

A Safety Data Sheet has been compiled for Ethyldiglycol Acrylate (EDGA) 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.

June 2016