**Triacetin**  
Plastic Additives / Acetates

**Description**  
Triacetin is a clear, colourless acetate ester used for solidification of cellulose acetate fibres, as a carrier for flavour and essence concentrates, as a solvent and plasticiser in cosmetic formulations and for plasticising synthetic rubber and cellulose derivatives.

**Chemical composition**  
Glycerol triacetate

**CAS Registry Number**  
102-76-1

**Supply form**  
Water-clear liquid

**Typical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal Value</th>
<th>Unit</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refraction index $n_{D20}$</td>
<td>1.431</td>
<td>--</td>
<td>DIN EN ISO 6320 (in acc. to)</td>
</tr>
<tr>
<td>Hazen colour value</td>
<td>max. 15</td>
<td>--</td>
<td>DIN ISO 6271</td>
</tr>
<tr>
<td>Water content</td>
<td>max. 0.1</td>
<td>%</td>
<td>DIN 51 777</td>
</tr>
<tr>
<td>Free acetic acid content</td>
<td>max. 30</td>
<td>ppm</td>
<td>InternWM/A/03/89</td>
</tr>
<tr>
<td>Density at 20 °C</td>
<td>1.155</td>
<td>g / cm³</td>
<td>DIN 51 757</td>
</tr>
<tr>
<td>Viscosity at 20 °C</td>
<td>23</td>
<td>mPas</td>
<td>DIN 53 015</td>
</tr>
</tbody>
</table>

The analytical data are general guide values.

**Storage**  
Triacetin should be kept in its tightly sealed original container in a dry place. If stored properly, the product is stable for at least 12 months.  
The moisture sensitive Triacetin can be stored in a stainless steel tank (V4A; material no. 1.4571 [AISI 316Ti]).

**Packaging**  
Road tankers, 1000 kg PE-containers, 235 kg drums.
Solubility
Triacetin is readily soluble in aromatic hydrocarbons and most organic solvents. The solubility in aliphatic hydrocarbons, mineral oils, and in vegetable and animal oils is low. Solubility in water is approximately 58 g/l.
General properties
The major features of Triacetin are:
1. excellent suitability for the solidification of acetyl cellulose fibres, e.g. for the manufacture of cigarette filters.
2. very good dissolving power for a number of organic substances.
3. good plasticising effect for various plastics such as cellulose acetates or cellulose acetate butyrates and propionates.
4. good plasticising effect for cellulose-based paints.
5. good compatibility with natural and synthetic rubber.
6. good gelling capacity with PVC when used as additive; the replacement of as little as 10 – 15% of the plasticizer used by Triacetin is sufficient to improve gelling capacity.

Applications
Triacetin is suitable for the solidification of cellulose acetate fibres in the manufacture of cigarette filters. Triacetin is used as a carrier for flavour and essence concentrates and as a solvent and plasticiser in cosmetic formulations, e.g. nail and hair care.
In technical applications, Triacetin is used as a core sand binder in the metal foundry sector. Other applications are solvent and plasticiser in inks, printing inks and for cellulose-based plastics.
Triacetin is used in applications where foodstuff regulations and recommendations need to be met; further information is available on request from the address below.

Handling & Safety
A receiving inspection is recommended. The product should be stored in its tightly sealed original container in a cool, dry place. Once opened, containers should be resealed tightly after removal of product. Consult material safety data sheet (MSDS) for additional handling information on Triacetin.

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