JEFFSOL® ETHYLENE CARBONATE is a low-melting point solid, practically odorless and colorless.

\[
\begin{align*}
\text{H}_2\text{C} & \text{O} \\
\text{H}_2\text{C} & \text{O} \\
\text{C} & \text{O}
\end{align*}
\]

APPLICATIONS
JEFFSOL® Ethylene Carbonate is an excellent solvent for many organic and inorganic materials in such applications as surface coatings, dyes, fibers, plastics, and batteries. It is also an excellent reactive intermediate for selective alkoxylation, transesterification, and carbamate formation.

SALES SPECIFICATIONS

<table>
<thead>
<tr>
<th>Property</th>
<th>Specifications</th>
<th>Test Method*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear and substantially free of foreign matter</td>
<td>ST-30.1</td>
</tr>
<tr>
<td>Color, Pt-Co</td>
<td>40 max.</td>
<td>ST-30.12</td>
</tr>
<tr>
<td>Supercooled liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethylene Carbonate, wt%(^1)</td>
<td>99.5 min.</td>
<td>ST-35.114</td>
</tr>
<tr>
<td>Water, wt%(^2)</td>
<td>0.1 max.</td>
<td>ST-31.53</td>
</tr>
<tr>
<td>Water sol., 50 wt%</td>
<td>Clear</td>
<td>ST-30.15</td>
</tr>
</tbody>
</table>

\(^1\)GC Assay on water free basis  
\(^2\)Karl Fisher

*Methods of Test are available from Huntsman Corporation upon request.

ADDITIONAL INFORMATION

Regulatory Information
- DOT/TDG Classification: Not regulated
- HMIS Code: 2-1-0
- WHMIS Classification: D2A, D2B
- CAS Number: 96-49-1, 107-21-1

Chemical Control Laws
- Canada, DSL: Listed
- United States, TSCA: Listed

Typical Physical Properties
- Boiling point, °C (°F) 248 (478)
- Flash point, PMCC, °C (°F) 152 (306)
- Freezing point, °C (°F) 36 (97)
- pH 7
- Specific gravity 1.3
- Vapor pressure, mmHg, 20°C (68°F) <0.01
- Viscosity, cSt, 40°C (104°F) 1.5
- VOC Content by ASTM D2369 34%
- Water solubility (%) > 10
- Weight, lb/gal, 20°C 11.0
- UEL, (v/v), 200°C 26.8%
- LEL, (v/v), 200°C 4.5%
- Autoignition temperature 447-450°C
- Dielectric constant, esu, 40°C 89.6
- Specific resistance, ohm-cm, 40°C 1-10x10\(^7\)
TOXICITY AND SAFETY
For additional information on the toxicity and safe handling of this product, consult the Material Safety Data Sheet (Safety Data Sheet in Europe) prior to use of this product.

HANDLING AND STORAGE
Recommendations for thawing containers of JEFFSOL® Ethylene Carbonate are discussed below.

Drums:
Drums should be thawed in a hot box maintained at 110-120°F (40-50°C). The drum bung should be loosened slightly to allow venting during the thawing process. The hot box temperature should never exceed 130°F (55°C). Once thawed and not used immediately, the head space of each drum should be purged well with nitrogen and the drum resealed.

Other Containers (including ISO Containers):
• Record the temperature and pressure of the container upon delivery.
• Connect nitrogen to the container and maintain a 5-10 psig pad on the container during the thawing and unloading process.
• Heat the product to between 110-120°F. Do not exceed 130°F (55°C) maximum. Hot liquid or steam may be used as the heating medium. The temperature of the heating medium should not exceed 160°F (70°C). If steam is used, it should be controlled not to exceed 5 psig. The melting process may take 3-5 days to completely melt the ethylene carbonate.

AVAILABILITY
JEFFSOL® Ethylene Carbonate is available in tank cars, tank wagons, and drums. Samples are available by contacting our sample department at 1-800-662-0924.