STORAGE AND HANDLING OF DIESEL EXHAUST FLUID (DEF)

DO’S

- **DO** use API-certified DEF products which have been certified to meet ISO/OEM requirements and are tested in the aftermarket to assure compliance.
- **DO** maintain ideal storage conditions. High temperatures can reduce shelf life (See INSET*).
- **DO** rotate stock regularly. Use older stock first.
- **DO** use dedicated bulk storage tanks for DEF.
- **DO** thoroughly rinse the tank with distilled or de-ionized water or on-spec DEF when switching tanks with another product is unavoidable.
- **DO** monitor DEF levels in cold weather. DEF can expand by up to 7% when frozen.
- **DO** ensure your supplier is providing a Certificate of Analysis (or Quality) with every shipment that addresses all of the quality characteristics that ISO 22241 requires.
- **DO** consider a closed-loop system for DEF transfer to minimize the risk of contamination from airborne particles.
- **DO** employ dedicated dispensing equipment for DEF. Avoid using common funnels, pitchers or hoses used for other fluids to prevent contamination.
- **DO** clean dispensing equipment properly with distilled or de-ionized water for cleaning, followed by a rinse with DEF.

DON’T’S

- **DON’T** store DEF in direct sunlight or high temperatures, which can accelerate degradation.
- **DON’T** add aftermarket additives to DEF. These may harm the quality of your DEF and could void your warranty.
- **DON’T** use dirty equipment to dispense DEF. This can introduce contaminants and affect performance.
- **DON’T** reuse containers of other products for DEF without thorough cleaning. Cross-contamination can affect DEF quality.
- **DON’T** use tap water to clean your tanks and dispensing equipment. Tap water can contain contaminants that are harmful to SCR systems.
- **DON’T** forget to periodically use/replace any “emergency” DEF you carry in your diesel in accordance with the storage guidelines (See INSET*).

*Storage Temperature Impact on DEF Shelf Life*

<table>
<thead>
<tr>
<th>Constant Ambient Storage Temperature</th>
<th>Shelf Life, months</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤50 °F (10 °C)</td>
<td>36</td>
</tr>
<tr>
<td>≤77 °F (25 °C)</td>
<td>18</td>
</tr>
<tr>
<td>≤86 °F (30 °C)</td>
<td>12</td>
</tr>
<tr>
<td>≤95 °F (35 °C)</td>
<td>6</td>
</tr>
<tr>
<td>&gt;95 °F (35 °C)</td>
<td>Test before use</td>
</tr>
</tbody>
</table>

Look for the API DEF certification mark and confirm licensed products by searching the API DEF Licensee Directory at [www.API.org/DEF](http://www.API.org/DEF)

API strives to promote best practices in storing and handling DEF to ensure safety, efficiency and compliance with the ISO 22241 specification. For more information, contact [APIDEF@api.org](mailto:APIDEF@api.org).