SAFE-SOLV 148
North Sea–approved cleaning solvent

APPLICATIONS
■ Downhole use in oil or gas wells
■ Casing cleaning during the displacement of oil or synthetic drilling fluids prior to the start of production
■ Use in freshwater or seawater
and applied as a spacer

ADVANTAGES
■ Softens, dissolves, and suspends hydrocarbon deposits that could interfere with production
■ Contains no aromatic or chlorinated hydrocarbons
■ Contains no alkylphenol ethoxylates
■ Applies for dealing with the same type of hydrocarbon deposits in tanks, pipe work, and related equipment

The SAFE-SOLV 148 North Sea–approved cleaning solvent is a nonflammable, environmentally acceptable blend of solvents used to displace or remove oil- or synthetic-based drilling fluids and solids. It is designed to soften, dissolve, and suspend any pipe dope, paraffin wax, asphaltenes, and heavy crude oil deposits on tubular surfaces or on the wellbore surface that could interfere with production. This contributes to reduced filtration costs and formation damage, as well as increased well productivity and lower overall well costs. The SAFE-SOLV 148 solvent is biodegradable.

Solutions may be made between 3% and 10% by volume through the rig hopper. Use higher concentrations where higher levels of hydrocarbons exist in the mud to be displaced or when displacing unconditioned or high-density drilling fluids.

Toxicity and handling
Harmonised Offshore Chemical Notification Format (HOCNF) is available upon request.

Avoid eye and skin contact. Gloves and goggles are recommended when handling this product. In case of contact with skin, wash exposed area with copious quantities of water. In case of contact with eyes, wash with plenty of water and seek medical advice. The product may cause lung damage if swallowed.

The SDS should be consulted prior to handling.

The SAFE-SOLV 148 solvent does not have restricted classification for transportation.

Packaging and storage
■ Standard package unit is 208-L [55-galUS] drums or bulk.
■ Other package units are available on request.
■ Store in a sealed container at ambient temperature.

Typical Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical appearance</td>
<td>Colorless liquid</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>~0.81 at 68 degF [20 degC]</td>
</tr>
<tr>
<td>Flash point</td>
<td>178 degF [81 degC]</td>
</tr>
</tbody>
</table>