

# AI-7NR Acid Inhibitor

## Applications:

AI-7NR is Liberty's proprietary environment and people friendly acidizing inhibitor. This revolutionary product will protect and preserve both the safety of the people as well as the environment. AI-7NR is completely non-reactive to the formation mineralogy and totally dispersible in both live and spent acid systems.

AI-7NR is non-ionic so it is non-reactive and has no negative effect on the acid additives and products normally required to treat oil or gas bearing formations. AI-7NR is a broad-spectrum corrosion inhibitor that can be used in all forms of acid stimulation treatments from fracture based acid systems to deep hole critical sour coiled tubing treatments. The inhibitor is completely soluble in both aqueous and hydrocarbon based formation fluids. The AI-7NR inhibitor is also able to aid in the decrease of interfacial and surface tension and in demulsifying incompatible fluids.

AI-7NR can be used with standard corrosion inhibitor intensifiers for high temperature applications when required and still maintain a substantially improved cost effectiveness. AI-7NR is non toxic and non corrosive, yet is much more effective than established corrosion inhibitors. This proprietary product is available solely from Trican Well Service and is available throughout Western Canada.

## Properties:

Appearance ..... Amber liquid with no odor  
Solubility ..... Soluble in water, acid and brines  
Specific Gravity ..... 1.00  
Flash Point ..... n/a (not considered flammable)  
Ionic Character ..... Non-Ionic



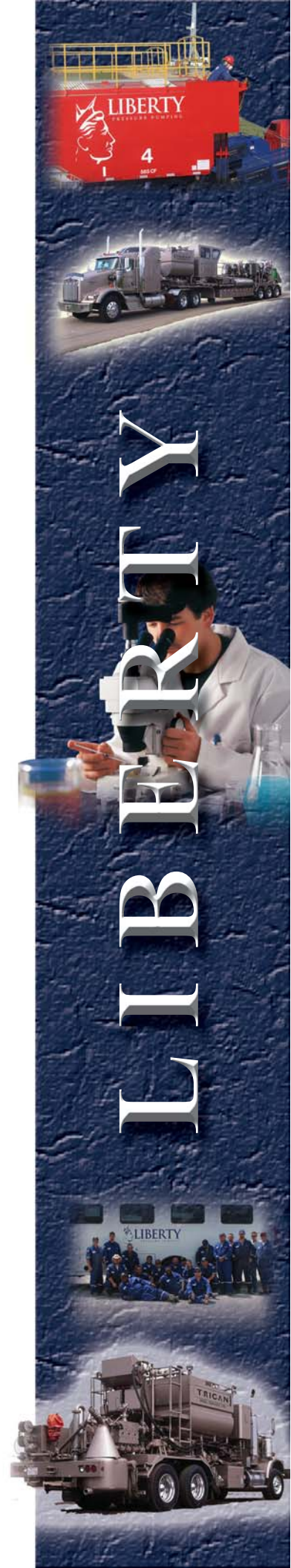
June 22, 2009

Acidizing – Inhibitors

Page 1

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information.

Liberty Pressure Pumping, L.P., 1517 Centre Place Drive #320, Denton, TX 76205, 940-243-1120



# AI-7NR Acid Inhibitor

## Advantages:

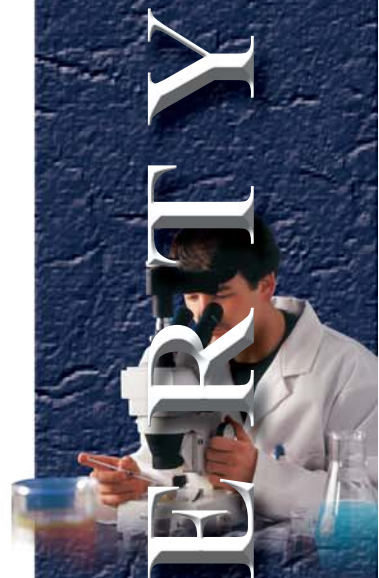
- Completely **soluble** in all hydrochloric acid blends and does not react with other chemicals in the acid blend due to its non-ionic charge. It is common to use inhibitor intensifiers (IF-1 and IF-2) with AI-7NR to increase its corrosion resistance at higher temperatures while maintaining its cost effectiveness.
- **Non-regulated** for transportation purposes.
- Has toxicological and ecological advantages over typical corrosion inhibitors (such as acetylenic alcohols).
- Effective to 210 °F without intensifiers.
- Contains no propargyl alcohol.
- No odor.

## Limitations:

- No particular limitations known.

## Handling Precautions:

- Do not allow contact with skin. If exposed, rinse area with soap and water for 15 minutes.
- If eyes are exposed, rinse with cold water for 15 minutes.
- Wear rubber gloves, and rubber suit, face shield, and proper eye protection when handling.
- Keep away from sources of ignition.
- Refer to Material Safety Data Sheet.



June 22, 2009

Acidizing – Inhibitors

Page 2

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information.