JMN SPECIALTIES, INC.

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PRODUCT BULLETIN

SPEC HIB LDHI-10

Low Dosage Hydrate Inhibitor

General Description

The formation of natural gas hydrates can be a serious issue in oil and gas production. Hydrates are crystalline, ice-like solids that form when small gas molecules, such as methane, ethane, and propane are trapped in cages of water molecules under high-pressure and low temperature conditions. These conditions are often encountered in offshore operations, such as subsea flow lines and in onshore applications under cold weather conditions in northern regions.

SPEC HIB LDHI-10 is a non-thermodynamic chemical inhibitor that is very different from traditional inhibitors in that it does not shift the thermodynamic hydrate equilibrium conditions towards lower temperatures and higher pressures. Instead, **SPEC HIB LDHI-10** interferes with the process of hydrate formation. **SPEC HIB LDHI-10** is used to prevent gas hydrates from forming during gas production, especially in offshore operations. They are effective at low dosages and provide a sound alternative to alcohol or glycol injection. **SPEC HIB LDHI-10** functions both as a Kinetic Hydrate Inhibitors (KHI) as well as an Anti-Agglomerants (AA) inhibitor. **SPEC HIB LDHI-10** is biodegradable (OECD 306 >50% in 28 days).

Application

The effective concentration for **SPEC HIB LDHI-10** typically ranges from 500 ppm to 3% of the total amount of water being treated thereby reducing the overall costs as well the storage and handling hazards associated with thermodynamic inhibitors. **SPEC HIB LDHI-10** hydrate inhibitor should be applied on a continuous basis into the flowing gas, upstream of the hydrate forming region. It can be applied at 0.5% to 3% based on water production. This usage should be approximately 10-20 times less volume than using methanol alone or other typical thermodynamic hydrate inhibitors.

Physical Properties

Color Clear, to light amber liquid

Odor Alcohol Specific Gravity 0.82 - 0.84

pH NA

Flash Point 52 to 54 °F (11 to 12 °C)

Solubility 100% Soluble in Water & Saturated Brines

Availability

SPEC HIB LDHI-10 is available in UN approved 5 gallon pails, 55 gallon drums and bulk quantities.

Handling

Observe warning label on containers. Normal precautions for industrial chemicals apply.