Low Dosage Hydrate Inhibitors (LDHI)
Safely Maintain Well, Flowline, and Pipeline Integrity While Lowering Total Costs

Multi-Chem's Low Dosage Hydrate Inhibitors (LDHI) effectively control hydrates to maintain well, flowline, and pipeline integrity while lowering total costs.

Requiring lower dosage rates than traditional methanol or glycol based inhibitors, Multi-Chem's LDHI solutions prevent hydrate plugs that can create complete blockages, improving health, safety and environment (HSE) performance by reducing chemical storage and handling hazards associated with thermodynamic inhibitors such as methanol and glycols.

Multi-Chem's chemical experts perform an extensive system survey to determine which type of inhibitor is best suited for the application and provide a cost-effective LDHI program to reduce the risks of plugged lines and system failures associated with hydrates. Our team of flow assurance engineers use state-of-the-art monitoring and modeling software to design and implement the right solution to keep the pipeline network flowing at optimal levels.

Offering best-in-class technology, Multi-Chem continues to introduce innovative technologies and applications for LDHI solutions, including:

- Anti-Agglomerate (AA) inhibitors that prevents hydrates from adhering to each other by keeping hydrate crystals in a slurry that can be flushed out with remaining fluids
- Kinetic Hydrate Inhibitors (KHI) that prevents hydrates from forming for a period of time—or holds them static for a period of time. If the residence time of the fluids in a pipe is shorter than the hold time, no hydrates form

For testing and assessing LDHI, Multi-Chem has developed a first-of-its-kind system of highly advanced rocking cells, specially designed to withstand corrosive gases. The system provides an opportunity to better simulate actual flow conditions, reducing risks of plugged lines and system failures during later field application.
Flow Assurance Engineering Support and Consulting
Multi-Chem’s team of flow assurance engineering consultants provide modeling work, process and procedure reviews and writing, field design assistance, and general flow assurance consulting. Using state-of-the-art transient and steady-state fluid flow modeling software, Multi-Chem experts monitor and consult on changes to help ensure production at optimal levels. Detailed onsite training is also available from Multi-Chem to inform and educate with regard to safe and effective use of LDHI chemical technologies.

Features
- Expert system survey determines the LDHI best suited for the application
- Lower dosage rates than traditional methanol or glycol-based inhibitors
- Innovative, field-proven solutions like Anti-Agglomerate (AA) and Kinetic Hydrate Inhibitors (KHI)
- First-of-its-kind system of highly advanced rocking cells for testing and assessing LDHI
- Detailed on-site customer training is available

Benefits
- Reduces risk of failure and HSE incidents associated with hydrate plugs, such as line breaks, spills, and associated injuries
- Keeps pipeline network flowing at optimal levels, minimizing the need for intervention
- Lower dosage rates reduce logistics costs like delivery, storage, and pump requirements
- Significantly reduces methanol consumption and associated hazardous air pollutants
- Eliminates refinery surcharges, problems with methanol in production fluids

Low Dosage Hydrate Inhibitors (LDHI) from Multi-Chem effectively control hydrates to maintain well, flowline, and pipeline integrity while lowering total costs.

Value Delivered to Our Customers
High Performance LDHI Enables Elimination of Methanol
A pipeline company in the Southern Rocky Mountain area operating approximately 6,000 miles of pipelines was purchasing several thousands gallons of methanol per year to inhibit hydrate formation. With the injection of Multi-Chem’s LDHI, the company has been able to discontinue the use of methanol. The company has found that the higher price per gallon cost of Multi-Chem’s hydrate inhibitor has actually cost them less in preventing pipeline hydrates from forming due to pipelines not freezing, no down time, less man hours and using 3,000 gallons of hydrate inhibitor compared to 10,000 gallons of methanol.

High Performance LDHI Enables 60% Reduction in Methanol
A natural gas pipeline company in Northwest Canada was having hydrate issues, causing well downtime and increased operator interaction. After using Multi-Chem’s LDHI, they experienced a reduction of the methanol rates by 60%, saving the customer money on product cost, transportation, and operator involvement.

For more information, please contact your local sales representative or e-mail multichem@halliburton.com