TECHNICAL DATA SHEET

StarDril®

StarDril® is a highly derivatized, complexed polyose specifically developed as a non-toxic filtration control additive for drilling and completion fluids used in the Canadian drilling industry. It is particularly suited for drilling in areas sensitive to Canadian Microtox testing issues. And, StarDril is acceptable for use in Land Spreading While Drilling (LWD) operations.

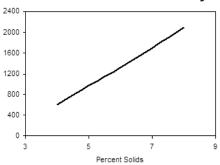
Advantages

- Easily passes Canadian Microtox specifications
- Compatible in a wide range of water-based fluids
- Cost effective alternative for PAC/CMC
- Enzyme stability
- Fermentation resistance without biocide addition
- Inhibition/Encapsulation of clay surfaces
- Pseudoplastic properties

Appearance

StarDril is an off-white, free-flowing granular powder. Aqueous solutions are translucent

Effect of Solids Concentration on Viscosity



Microtox Testing

StarDril has been tested for microtoxicity according to G50 guidelines promoted by the Alberta Energy Utility Board (AEUB). StarDril passes Canadian MicroTox specifications with MTX Threshold Values 100-200 times higher than other starch-based products

Typical MTX Threshold Values for StarDril

StarDril	G50 MTX Threshold Values (Kg/m ³⁾
Avg. of 6 Prod. Lots	24
Range of 6 Prod. Lots	16 – 41

Preservation

Biocide addition is not necessary when using StarDril by virtue of the chemical modifications made during processing.

Storage, Handling and Safety

StarDril exhibits good storage stability if kept dry in its original package. Shelf life can be affected by storage conditions such as temperature, humidity and overall surroundings of the storage area. A Safety Data Sheet is available from Chemstar and should be consulted prior to handling or use.

Availability

StarDril is available in 50 lb or 25 kg multi-wall poly-lined paper bags for truckload and LTL shipments. For additional information, samples, or technical assistance in using StarDril or any other Chemstar product please contact

1-800-328-5037 or info@chemstar.com.



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Typical Analysis

	StarDril
Viscosity (cP), 5% Solids LVT, 60 RPM, #3 Spindle	500 – 1,500
pH (5% Solids)	10.0 – 11.5
Percent Moisture (%)	10 max
Bulk Density (lb/ft³)	35 – 45
Particle Size (% thru)	95 (-) 850 micron

Disclaimer: The information contained in this bulletin is correct to the best of Chemstar's knowledge and is intended only as a source of information. The recommendations or suggestions herein are made without guarantee or representation as to the results. In addition, Chemstar suggests that you evaluate the recommendations contained in this bulletin in your own laboratory prior to use. Chemstar's responsibility for claims arising from breach of warranty, negligence or otherwise is limited to the purchase price of the material. No statement in this bulletin is to be construed as violating any copyright or patent.