

# RheThin

## Flat rheology system thinner

### APPLICATIONS

- Invert-emulsion drilling fluids

### ADVANTAGES

- Easy-to-mix, fast-acting liquid thinner
- Wide application in synthetic- and oil-based systems

The RheThin\* flat rheology system thinner is a complex polymeric surfactant used as thinner and conditioner for synthetic- and oil-based systems. The RheThin thinner reduces the overall viscosity and gel strengths of solids-laden drilling fluids without the need for dilution or changing the synthetic- or oil-to-water ratio. The liquid thinner works particularly well in invert-emulsion drilling fluids where a change in volume is undesirable.

Typical treatments range from 0.25 to 0.5 lbm/bbl [0.71 to 1.42 kg/m<sup>3</sup>]. Concentrations up to 1 lbm/bbl [2.85 kg/m<sup>3</sup>] may be required in solids-laden invert fluids. Pilot testing and incremental additions are recommended to determine the required concentration and effectiveness of the RheThin thinner. Care should be taken when using high concentrations outside of the normal range, because it can impact toxicity results.

Overtreatment can cause drastic reductions in low shear rate viscosity (LSRV) values (6- and 3-rpm readings) and gel strengths. The product should be added evenly throughout the system over one complete circulation to ensure a uniform distribution of the treatment.

### Limitations

Avoid overtreatment with the RheThin thinner. If barite settling is observed, treatments of organophilic clay should be used to restore barite suspension capacity. The RheThin thinner may not provide long-term viscosity reduction; over time or through the incorporation of additional drill solids, viscosity and gels may return to or close to initial levels.

### Toxicity and handling

Handle as an industrial chemical, wearing protective equipment and observing the precautions described in the Safety data sheet (SDS). Bioassay information is available upon request.

### Packaging and storage

The RheThin thinner is packaged in 55-galUS [208-L] drums and 550-galUS [2,081-L] totes.

Store in a dry, well-ventilated area. Keep container closed. Keep away from heat, sparks, and flames. Store away from incompatibles. Follow safe warehousing practices regarding palletizing, banding, shrink-wrapping, and stacking.

### Typical Physical Properties

Physical appearance	Light brown liquid
Odor	Hydrocarbon
Specific gravity	0.83
Flash point	180 degF [82.2 degC]