



# PRODUCT DATA SHEET

## FR-1

### Oilfield Chemicals Cement Retarder

#### DESCRIPTION

Economy's FR-1 is a lignosulfonate cement retarder used to control the thickening time of a cement slurry.

#### ADVANTAGES

FR-1 is a free flowing powder that may be dry blended with cement before mixing. It may be used to control the setting of a slurry for bottom hole circulating temperatures up to 250°F (121°C). It has a retarding and dispersing effect on the cement slurry during placement.

#### APPLICATION

FR-1 may be used for retarding any API class of cement (A, C, G or H). It may be used with other cement additives such as fluid loss additives, silica flour, dispersants, defoamers and weighting materials.

#### PROPERTIES

Appearance	Tan Powder
Specific Gravity	1.19
Bulk Density	24 lb/ft <sup>3</sup>
pH	4.5
Water Requirements	none
Packaging	50 lb. bags
Loading Rate	0.1 to 2.0% bwc
See Thickening Time Data	

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