PRODUCT DATA
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OILAID-FR-20

ACID FRICTION REDUCER

DESCRIPTION
OILAID-FR-20 is a cationic, polyacrylamide co-polymer for use as a friction reducer in acid, brines, high hardness and fresh waters. Its properties are:

Form	Opaque Liquid
Spec. Gr. @ 60 °F	1.02 - 1.07
Pour Point	-10° F
Flash Point	> 210 °F.
pH (neat)	4.9
Ionic Nature	Cationic

APPLICATION
OILAID-FR-20 gives up to 70% friction reduction in 15% HCl and weak acid solutions and works well in high strength acids at temperatures above 300~ F. It contains an activator that allows it to rapidly go in to solution and begin yielding immediately.

Avoid prolonged storage of an OILAID-FR-20/acid mixture at temperatures above 100~F. Under these conditions, degradation of the polymer will begin in 8 hours in 15% HCl and in 4 hours in 28% HCl. Below 100~F, acid solutions retain friction properties for up to 16 hours.

TREATMENT
The normal concentration of OILAID-FR-20 in weak acid and 15% HCl is 1 to 2 gallons per 1000 gallons acid (gpt). Strong acid requires from 2 to 4 gpt to obtain a 65% friction reduction. In fresh water, less than l gpt gives excellent friction reduction. Brines and high hardness water require slightly higher concentration.

OILAID-FR-20 gives the best friction reduction when injected directly from the drum into the centrifugal pump. Be sure that drums are well agitated (e.g., with an airlance) before beginning treatment.

HANDLING & PACKAGING
No special precautions are necessary for handling OILAID-FR-20 but contact with eyes and skin should be avoided.

OILAID-FR-20 is available in 55-gallon steel drums and 5-gallon metal cans.