



PRODUCT BULLETIN

GUMBO GONE

For Reduction of Shale Hydration

Shale Hydration (Gumbo) General Description

Solids consisting of inorganic, colloidal sized reactive particles are termed clays. These solids may have originated from commercial clays added to the system or from native clays derived from drilled formations. Shale is a fissile rock composed of clay minerals and silt. The clay minerals are predominately illite, chlorite, montmorillonite, kaolinite and mixed layers of chlorite and illite. These different clay minerals exist because of different structural arrangements of two basic building blocks; the silica tetrahedron and the aluminum octahedron. Because of structural rearrangements of and accompanying ionic substitutions, some clays swell when hydrated in water while others do not. Kalinite, for example, does not swell in water. Illite and chlorite similarly show little swelling or expansion in water. Montmorillonites, on the other hand, exhibit varying degrees of swelling. This swelling of montmorillonite shale is well known in the drilling industry as "**Gumbo**".

GUMBO GONE is a water soluble drilling additive that is non-toxic, non-foaming, non-flammable, and biodegradable. **GUMBO GONE** contains a combination of proprietary additives that inhibit the hydration of the shale by satisfying the unbalanced ionic charges in the clays and by forming a *protective film* that blocks entry of water into the shale. This *protective film* prevents hydration of the shale which helps reduce bit balling, collar plugging, sloughing, enlarged hole and hole-fill on trips. In addition to its shale control, **GUMBO GONE** also is an exceptional corrosion inhibitor and extreme pressure lubricant. **GUMBO GONE** helps maintain a thin, tough wall cake, and **GUMBO GONE** is not affected by sodium content in the drilling fluid.

Application

GUMBO GONE can be used from 1 to 6% by volume in the mud system. If the depth for the gumbo shale is known, pre-treat with 1 to 2% and adjust accordingly. Starting treatment for existing gumbo should be at 2% and adjust accordingly.

Properties

Appearance	Light Amber Liquid
Specific Gravity	1.01
Pour Point	25 Deg F
pH	< 12.5

Availability

GUMBO GONE is available in UN approved 55 gallon drums and in bulk.

Handling

Observe warning label on product container. Normal precautions for industrial chemicals apply.