

Product Description

**DF–FREE**<sup>TM</sup> pipe-freeing agent, can be mixed with base oil and water to rapidly create an invert emulsion that is an effective stuck pipe pill. Has the ability lubricate and dehydrate the filter cake from water-based fluids to aid in breaking the cake apart to help alleviate differentially stuck drill pipe, preferred when a weighted spot is desired to match the system density and can be weighted up with all common weighting agents.

## Application Areas

- Help release differently stuck pipe
- Helps prevent interfacial thickening of oil-based mud and cement during cementing operations
- Helps emulsify water into oil-based fluids
- Can be used as a spacer fluid between oil based drilling fluids and cement

# Advantages

- Thermally stable at high temperatures up to 400°F (205°C)
- Can be formulated with varying oil/water ratios
- Liquid concentrate for ease of addition
- Easily weighted with any weighting agent

#### **Properties**

## Recommended Treatment

• The below table show the recommended treatment concentrations for Mixing 100 bbl. of DF- free spotting agent pills at different densities

Density (ppg)	8	10	12	14	16	18
O/W %	70 / 30	70 / 30	70 /30	70 / 30	80 / 20	80 /20
Base oil bbl	65	58	54	49	51	44
DF FREE (dr)	6	8	8	8	8	8
Water (bbl.)	28	26	22	21	11	10
Barite (100 lb/ sk.)	-	140	250	350	465	570

#### **Packing**

**DF-FREE**<sup>TM</sup> is packaged in steel drum, 180 kg. net weight

# Safe Handling

Utilize normal precautions for employee protection when handling chemical products. Utilize appropriate respirator, gloves, goggles and apron. Refer to Material Safety Data Sheet (MSDS) for this product prior to use.

