

Paratene™ WF

“Water Foaming Agent”

Description

Paratene™ WF is a blend of foaming agents and stabilizers specifically designed to provide high activity and optimum foaming in a wide range of well environments including fresh water, light to heavy brines containing high concentrations of calcium and magnesium, and in water contaminated with oil. Paratene™ WF can be used for unloading excess formation fluids in gas wells, coil tubing clean-outs, and for air/foam drilling operations.

Features and Advantages

- **Foams fresh water**
- **Foams saturated brine**
- **Foams in presence of oil**
- **Foams HCL acid**
- **Excellent foam stability**
- **Excellent foam quality**
- **Excellent foam height**
- **Freeze-Proofed to Minus 40°C**

Typical Physical Properties

Appearance	Clear Liquid
Specific Gravity	0.96
Flash Point	12°C
pH	8.5
Freeze Point	-40°C
Ionic Character	Anionic

Methods of Application

Paratene™ WF is typically added directly to water at a concentration of 0.3 – 2% to generate a foam with air, nitrogen or carbon dioxide.

Paratene™ WF can be added directly to a gas well by pouring it into the annulus. The well can then safely be unloaded.

Test Data

Foam height and half-life are measured with 100 ml of fluid and a loading rate of 1.0% by volume.

Fluid	Foam Height (ml)	Half-Life (min)
Fresh Water	1010	4.5
1% NaOH	950	5.0
1% CaCl ₂ & 1% NaCl	1050	4.0
5% Oil in water	905	5.0
15% HCL acid	850	6.75

Safety and Handling

Paratene™ WF is flammable and toxic and should be handled with care. Contact may be irritating to the eyes and skin. Refer to the material safety datasheet for additional information.

WOODRISING RESOURCES LTD.

Bay #2 321 37th AVENUE N.E., Calgary, AB T2E 6P6 CANADA
 Phone: 403-216-2130 Fax: 403-216-2132 Website: www.paratene.com