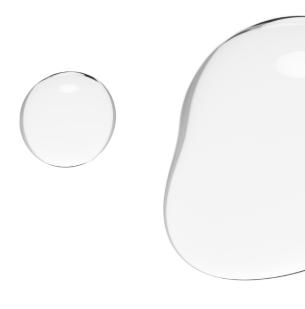
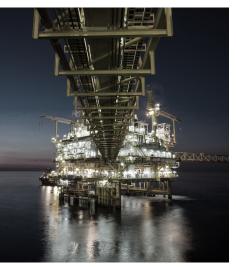
Special Application Fluids

Multiple applications
One versatile solution





The fast-acting multipurpose fluids



Keeping our special application fluids on standby provides the rapid solution to several potentially timeconsuming and costly issues.

Our fast-acting and safe special application fluids are based on solids-free, high-density cesium formate brine. They're ideal for:

Releasing stuck pipe

Our special application fluids act quickly to disrupt oil-based mud (OBM) filter cake and swiftly release differentially stuck pipe.

Breaking filter cake

OBM emulsions are disrupted resulting in break up of filter cake. Special application fluids are also effective at weighting up chelating agents, such as EDTA, and acid precursors.

Dissolving hydrates

With their natural, solids-free high densities, our hydrate dissolution fluids use their weight to 'slump down' the wellbore and dissolve hydrate plugs quickly and safely without the need for costly intervention tools.

Reservoir perforating

Our non-damaging fluids form effective perforating pills with fluid-loss control.

Forming a debris barrier

Our fluids enable the continued function of critical valves and ports during completions to hinder mud solids settling.

Laboratory validated and field-proven special application fluids are high density and solids free. They are:

- Extremely versatile use without additives for most applications
- Easy to use and quick to deploy no mixing required for most applications
- Fast acting downhole work rapidly after deployment
- Highly durable clear brine with no solids to sag
- Thermally stable proven to withstand temperatures up to 235°C (455°F)
- Environmentally friendly negligible environmental impact if released to the ocean
- Highly effective even in challenging high-pressure, high-temperature environments
- Cost saving save rig time with no additional OBM-related cleanup costs
- Safer for rig crew ease of handling speeds up deployment
- Space saving rig inventory is reduced as additives are not required

Why weight?

Available in solids-free densities from 1.80 g/cm³ (15.0 lb/gal) to 2.30 g/cm³ (19.2 lb/gal), our special application fluids are readily available from stock for specific project requirements or for standby use offshore. No additives are needed in the applications listed, with the exception of debris-barrier fluids and perforating fluids where viscosifiers may be required.



Why are our fluids so effective?





High-density cesium formate brine is rated gold by CEFAS and meets many other exacting environmental standards.

Special application fluids are formed using cesium formate brine. Effective and versatile, our brine's unique properties deliver a number of benefits:

High density and solids free

Our cesium formate brine comes in highly pure 80 wt% aqueous solution with solids-free densities up to 2.30 g/cm³ (19.2 lb/gal).

Low water activity

With water activity as low as 0.3, cesium formate brine promotes beneficial osmotic backflow and lowers freezing points to aid hydrate dissolution.

High thermal stability

Cesium formate brine is field proven to 235°C (455°F).

Low crystallisation temperature

Cesium formate brine performs well at low temperatures.

Readily biodegradable

Cesium formate brine safely biodegrades when diluted in the ocean. It is gold rated by the Centre for Environment, Fisheries and Aquaculture Science (CEFAS) and is by far the safest choice of all high-density brines.

Our fluids have been used successfully by leading operators in a wide range of applications since 1999. To find out how our fluids can benefit your operations and what we do to fully support you, please visit formatebrines.com or contact us using the details on the back cover.

Benefits	Stuck-pipe release pill	Hydrate pill	Perforating fluid	Debris barrier	Filter-cake breaker
No mixing	/	/	/	/	/
Rapid deployment	/	1	/	1	/
Rig-time savings	/	/	/	√	/
Safest high-density brine	/	1	/	/	/
Fast acting	/	/	/	√	/
High-density range	/	1	/	/	/
Low environmental toxicity	/	1	/	/	/
No additives required	1	1	_	_	√

Keeping our special application fluids on standby provides a rapid solution to many time-consuming issues.



performance through simplicity



formatebrines.com

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