Global Oilfield Solutions

BASF Coagulant and Flocculant Kit

BASF
We create chemistry

Diversify Your Options with BASF's Coagulant / Flocculant Portfolio

Introduction

Coagulants are low-molecular-weight polymers. They function by reducing the surface electronic charge on oil droplets and suspended solids enabling closer contact and coagulation. Flocculants are medium- to high-molecular-weight polymers which function by bridging between oil droplets and suspended solids to form agglomerates. Both coagulants and flocculants are used in deoiling (water clarification) and dewatering applications.

For removing residual oil in produced water, slop water, treating waste oil or oil sludge, BASF offers a broad range of water clarifiers (deoilers), covering different molecular weights, ionicities and chemistries.

Solids, in particular fines and ultra fines, can cause severe problems in drilling fluids when allowed to accumulate. If allowed to accumulate, solids below the 3 micron range can cause rheology issues, decrease penetration rates and formation damage. To effectively remove these fine solids it is recommended that certain chemicals, specifically polymeric coagulants and flocculants, be used in conjunction with mechanical equipment.

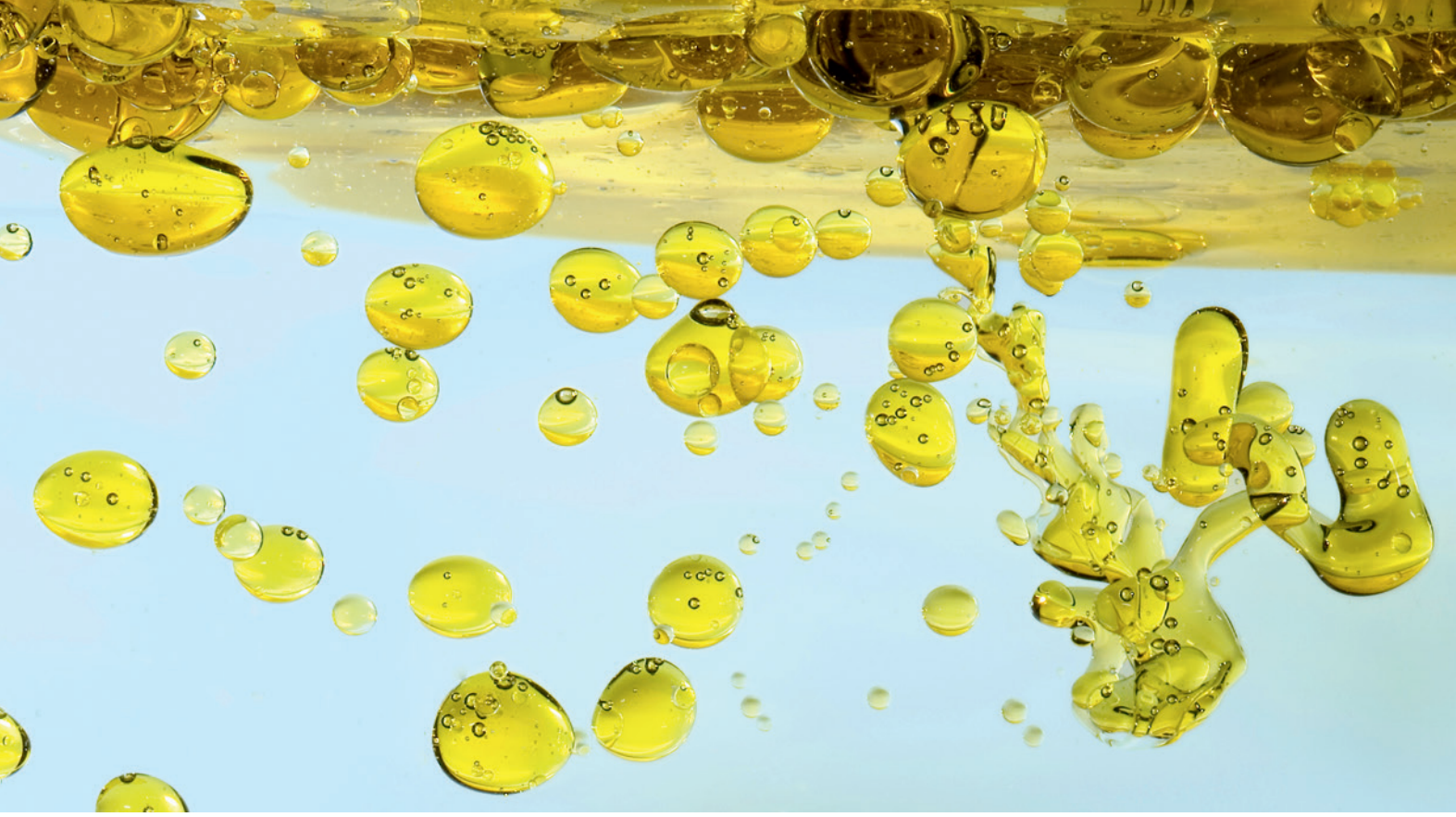
Applications

- **Process water treatment (classical deoiler application)**
  Only residual oil, no solids
- **Slop water treatment**
  Low oil content, low solids content
- **Waste oil treatment**
  Variable oil, water and solids content
- **Oil sludge**
  Low oil content, low water content, high solids content
- **Dewatering applications**
  Clear water drilling, control of MBT value and closed systems and/or reserve pit

Function guide

The Alcomer® series of polymers contains both low-molecular-weight cationic coagulants and a wide range of molecular-weight anionic and cationic flocculants. Simple laboratory experiments can help define the optimum treatment options and our experience has confirmed the success of these treatments in field applications.

Cover image: SEM (Scanning Electron Microscopy)
image of Alcomer® beads in false color representation



A deoiler test kit is available upon request

Initial recommendation

Coagulants are most effective when diluted to a 1–5 % active solution prior to application. They may also be applied neat provided a suitable injection point is selected where rapid mixing with the process stream will occur.

Optimum performance of **flocculants** is obtained when they are first prepared as diluted solutions of less than 0.5 % active polymer. Please note: Solid grades are slower to dissolve and require a preparation time of 1–2 hours to ensure complete dissolution.

Products in the Coagulant and Flocculant Kit

Product	Chemistry	Product form	Solid content [%]	Molecular weight	Ionic type	Ionic grade	Function		Availability			
									Region			
							Coagulant	Flocculant	NA	SA	EU	AP
Alcomer® 752	Cationic Polyacrylamide	Bead	100	Medium low	Cationic	Low	■		■	■	■	■
Alcomer® 755	Cationic Polyacrylamide	Bead	100	Medium low	Cationic	Medium	■		■	■	■	■
Alcomer® 758	Cationic Polyacrylamide	Bead	100	Medium low	Cationic	High	■		■	■	■	■
Alcomer® 783	Cationic Polyacrylamide	Liquid	100	High	Cationic	Medium		■	■	■	■	■
Alcomer® 811	Cationic Polyacrylamide	Powder	100	High	Cationic	Low		■	■	■	■	■
Alcomer® 812	Cationic Polyacrylamide	Powder	100	Medium high	Cationic	Low		■	■	■	■	■
Alcomer® 814	Cationic Polyacrylamide	Powder	100	Medium high	Cationic	Medium		■	■	■	■	■
Alcomer® 819	Cationic Polyacrylamide	Powder	100	Medium high	Cationic	High		■	■	■	■	■
Alcomer® 80	Polyacrylamide (PAM)	Powder	100	Very high	Non-Ionic	NA		■	■	■	■	■
Alcomer® 24 UK	Partially Hydrolized PAM	Bead	100	High	Anionic	Low		■	■	■	■	■
Alcomer® 115	Partially Hydrolized PAM	Powder	100	Very high	Anionic	Medium		■	■	■	■	■
Alcomer® 90P	Partially Hydrolized PAM	Powder	100	Ultra high	Anionic	Low			■	■	■	■
Alcomer® 216	Polyacrylate	Liquid	18	Low	Anionic	Medium	■		■	■	■	■
Alcomer® 7109	Cationic Polyacrylamide	Liquid	15	Low	Cationic	Very high	■		■	■	■	■
Alcomer® 7187	Polyamines	Liquid	40	Very low	Cationic	Very high	■				■	■
Alcomer® 7199	Polyamines	Liquid	50	Very low	Cationic	Very high	■		■	■		
Alcomer® SK	Polyethylenimine	Liquid	25	Medium	Cationic	High	■		■	■	■	■
Alcomer® 7523D	PAC derivatives	Liquid	20	Low	Cationic	Very high		■			■	

Additional Coagulant and Flocculant Product Line*

Product	Chemistry	Product form	Solid content [%]	Molecular weight	Ionic type	Ionic grade	Function		Availability			
									Region			
							Coagulant	Flocculant	NA	SA	EU	AP
Alcomer® DPI	Polyacrylates	Liquid	30	Low	Anionic	Medium	■		■	■	■	■
Alcomer® 888US	Cationic Polyacrylamide	Inv Emulsion	40	High	Cationic	High		■	■	■	■	■
Alcomer® 7576	PAC derivatives	Liquid	50	Low	Cationic	High	■		■	■	■	■
Basorol® RV	Tannin base polymer	Liquid	30	Low	Cationic	High	■			■	■	■

NA =North America including Canada and Mexico
SA = South America including Central America
EU = Europe including Middle East, Africa, CIS
AP = Asia Pacific including China, Japan

*Not included in Kit

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