

Uk Industrial Chemical Manufacturer Specialising in Upstream & Downstream Oilfield Chemical Solutions.



Chemiphase Ltd Uk Oilfield Chemical Manufacturer

Phone: (08456) 432900 UK Phone : +44 (0) 1704 894808 E-mail: sales@chemiphase.co.uk Web : www.chemiphase.com & www.chemiphase.co.uk

Hydroflux™ Oilfield Demulsifier Range

Drier Oil, Cleaner Water and Sharper Interface at Reduced Treating Costs



Features of Hydroflux™

Hydroflux[™] is a range of highly effective emulsifier's and demulsifiers designed for oilfield production and refinery applications. Every oilfield is as unique as its locations differ, for this reason we have developed a wide range of demulsifiers which offer outstanding performance & reduced treating costs with a smoother operation.

This is determined from on site analysis of crude, demulsifier testing on site and then fully re-checked back in the laboratory to ensure that the product we recommend is the best possible fit. Once a product has been recommended we offer on-site technical assistance for the product dosage rates and application points. This on-site technical service will continue to ensure that the product remains the best solution as the oilfield changes over the years.

Part of the Hydroflux[™] range are designed with environmental inpacts in mind. Our formulations have been shown to be inherently biodegradable. None of them are considered to be bioaccumulating.

When determining the correct Hydroflux[™] Treatment by the Chemiphase Technical Team, the following parameters will be assessed :

- Obsign of system and typical flow rates.
- Operating Temperatures
- Ontact Time & Mixing Available
- Analysis of Carrying Fluid

Benefits of Hydroflux™

- The Hydroflux[™] range has been proven to be highly effective Worldwide producing drier oil, cleaner water and a sharper interface.
- Hydroflux[™] is particulary cost effective in breaking tight emulsions that occur either naturally or by the addition of chemical additives deemed to improve oil production
- Hydroflux[™] can be used in many oilfield systems and situations concerned with oil/water emulsions.
- Hydroflux[™] offers outstanding performance in heavy oil applications with excellent low temperature performance.
- The Hydroflux[™] Oilfield Demulsifier Range are oil soluble products that destabilise water in oil emulsions. Normally used to dehydrate crude oil.
- The Hydroflux[™] Oilfield Demulsifier range includes Environmental Demuslifiers, Droppers, Treaters, Refinery Desalters & Hybrids.
- Hydroflux[™] Oilfield Demulsifier's are compatible with the following materials : Carbon Steel, Mild Steel, Stainless Steel 304 & 316. No significant changes with HD PE & PP, PTFE, VITON & EPDM.
- Chemiphase is committed to providing the highest quality products and services to its customers. Many of the products are produced in Lancashire, UK where the sites adheres to strict ISO:9001 standards.

Hydroflux™ Oilfield Demulsifier Range

Drier Oil, Cleaner Water and Sharper Interface at Reduced Treating Costs High Water & Low Water Cut, High Salt Content & Environmental Applications

			Primary Function				Crude Oil Type		
Product	Application	Splitter	Emulsion Breaker	Desalter	Multi Functional	Standard	Heavy Oil	Environmental	
Hydroflux CT-C18-01	Demulsifier	۵				٠			
Hydroflux CT-C18-02	Demulsifier	۵	۵				۵		
Hydroflux CT-C18-03	Demulsifier	۵			۵	۲			
Hydroflux CT-C18-04	Demulsifier	۵				۵			
Hydroflux CT-C18-05	Demulsifier	۵	۵		۵	۵			
Hydroflux CT-C18-06	Demulsifier		۵				۵		
Hydroflux CT-C18-07	Demulsifier		۵		۵	۵			
Hydroflux CT-C18-08	Demulsifier		۵	۵					
Hydroflux CT-C18-09	Demulsifier		۵	۵	۵				
Hydroflux CT-C18-10	Demulsifier			۵					
Hydroflux CT-C18-11	Demulsifier						۵		
Hydroflux CT-C18-12	Demulsifier			۲			۵		
Hydroflux CT-C18-13	Demulsifier			٢	۵		٢		
Hydroflux CT-C18-14	Demulsifier			٢			۵		
Hydroflux CT-C18-15	Demulsifier	٠						۲	
Hydroflux CT-C18-16	Demulsifier		۵					٢	
Hydroflux CT-C18-17	Demulsifier				۵			۲	
Hydroflux CT-C18-18	Demulsifier			۲				۲	
Hydroflux CT-C18-18	Demulsifier	۵	۵				۵		



Case History 1 - Hydroflux[™] CT18-03

Sampling point: Middle East Crude Oil Temperature: 27-29°C Nature of crude oil: Sweet crude oil API: 25 (as given) Density: 0,967 g/mL (as given) Test method: ASTM D4007

Water cut: 18% at sampling point (as given)

			Water Separation %			Top Oil Phase		
Interface	Demulsifier	Dosage Rate	After 30	After 30 Mins	After 30 Mins +	% Water	% Total	% Interfacial
Quality		(ppm)	Mins	+ Centrifuge	Centrifuge + Shake	Free	Water	Emulsion
ND	Neat Crude Oil	0 ppm	0	0	0	0	1.6	1.6
S	Competitor X	50 ppm	3	60	77	0	1.2	1.2
S	Competitor X	75 ppm	5	60	78	0	1.0	1.0
S	Competitor X	100 ppm	9	67	80	0	0.9	0.9
VS	Hydroflux CT18-03	50 ppm	15	77	90	0	0.4	0.4
S	Hydroflux CT18-03	75 ppm	21	78	91	0	0.2	0.2
S	Hydroflux CT18-03	100 ppm	35	98	100	0	0.0	0.0



Table and Graph shows that **Hydroflux CT18-03** led to an increased water separation (20% more water removed) and a better dryness of the oil (with 1.6% total water in the top of the oil phase) than results obtained used **Competitor X**.

% Free water: the percentage of water separated in the graduated tube after centrifugation (1500 RPM/5 min)

% Total water: the percentage of water found in the graduated tube after adding 1-2 drops of a "knockout dropper", keeping the tube at 60°C for at least 10 min and centrifugation at 1500 RPM/5 min.

% Interfacial emulsion: % total water minus % free water.

Case History 2 - Hydroflux[™] CT18-12

Sampling point: UK Crude Oil Temperature: 24-25°C Nature of crude oil: Sweet crude oil API: 18 (as given) Density: 0,967 g/mL (as given) Test method: ASTM D4007

Water cut: 63% at sampling point (as given)

			Water Separation %			Top Oil Phase		
Interface	Demulsifier	Dosage Rate	After 30	After 30 Mins	After 30 Mins +	% Water	% Total	% Interfacial
Quality		(ppm)	Mins	+ Centrifuge	Centrifuge + Shake	Free	Water	Emulsion
ND	Neat Crude Oil	0 ppm	0	0	0	0	1.6	1.6
S	Competitor X	50 ppm	3	60	77	0	1.2	1.2
S	Competitor X	75 ppm	5	60	78	0	1.0	1.0
S	Competitor X	100 ppm	9	90	80	0	0.9	0.9
VS	Hydroflux CT18-12	50 ppm	15	77	90	0	0.4	0.4
S	Hydroflux CT18-12	75 ppm	21	78	91	0	0.2	0.2
S	Hydroflux CT18-12	100 ppm	35	98	100	0	0.0	0.0



Table and Graph shows that **Hydroflux CT18-12** led to an increased water separation (28% more water removed) and a better dryness of the oil (with 2.4% total water in the top of the oil phase) than results obtained used **Competitor X**.

% Free water: the percentage of water separated in the graduated tube after centrifugation (1500 RPM/5 min)

% Total water: the percentage of water found in the graduated tube after adding 1-2 drops of a "knockout dropper", keeping the tube at 60°C for at least 10 min and centrifugation at 1500 RPM/5 min.

% Interfacial emulsion: % total water minus % free water.

Oilfield Production Chemicals

>> Hydroflux[™] [™] Demulsifier Range

The Chemiphase Treatment Procedure & Safety Commitment

- \Rightarrow On site analysis usually bottle testing & then fully re-analyse back in the laboratory to ensure that the product that Chemiphase recommend is the best possible fit, highly effective, safe & cost effective.
- ⇒ Once a product has been recommended we offer on-site technical assistance for the product dosage rates and application points. This will include regular monthly site visits to ensure customer satisfaction.
- \Rightarrow This on-site technical service will continue to ensure that the product remains the best solution as the oilfield changes over the years.
- ⇒ At Chemiphase we take great pride in offering green, environmentally sustainable chemical solutions and as such all the products in the range are produced using environmentally friendly methods and where possible, are formulated to be fully biodegradable.
- ⇒ All our chemical ranges are formulated by our highly trained and vastly experienced chemists and are put through rigorous in house testing in our purpose built research and development laboratory. We subject our chemical ranges to the most stringent of testing to make sure our customers receive the best products, whilst also satisfying our need for constant product improvement.



Chemiphase Oilfield Chemical Solution's

- Oilfield Emulsifier's & Demulsifier's
- Oilfield H₂S Scavenger's
- Oilfield Corrosion Inhibitor's
- Wax & Paraffin Treatment Regimes for Oilfield Applications
- MEOR- Enhanced Oil Recovery Techniques
- Objective & Scale Management
- Environmental Drilling Fluids



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