

Witbreak® demulsifiers

Proven solutions for fluid separation challenges

Nouryon

Why Nouryon?

As a leading global provider of specialty chemicals, we offer guidance for production and application engineers to select efficient, safe, and compliant chemistry solutions.

For more than 50 years, we have been delivering high-performing Oilfield demulsifiers under the globally recognized **Witbreak®** brand.

Our extensive range of world-class chemistries can be used as formulated additives to manage fluid separation challenges for a variety of crude oils.

Our high-performing Witbreak® demulsifiers deliver more efficient water removal during crude oil production and separation processes

- Water droppers
- Dryers and desalters
- Interface control



Our solutions are designed as concentrated raw materials for the preparation and formulation of robust oilfield demulsifiers.

They enable our customers to address crude oil fluid separation challenges with chemical treatment, driving production maximization, cost efficiency, and compliance.



Innovation

Creating innovations for global oilfield production and separation applications including biodegradable options to help customers meet sustainability goals.

Collaboration

Collaborating to foster and strengthen longterm customer partnerships.

Regional support

Serving customers, developing local solutions, and providing technical support where needed with our global footprint of manufacturing, innovation, and application centers.



Environmentally responsible

Our **Witbreak® NEO** demulsifiers offer biodegradable solutions that will not compromise your performance.

- NP-free and BTEX-free polyester chemistry with a high degree of biodegradation
- OSPAR and REACH compliant
- High activity combined with low pour point to facilitate customized blending
- Wide range of well-defined RSN to extend choice flexibility and treat crude oils with various origins more quickly
- Reliable supply within both Eastern and Western hemispheres

Our expertise

Leverage our expertise to build the right demulsifiers to resolve diverse crude oil challenges.

- Treat challenging crude oils with high asphaltene and paraffin content
- Manage emulsions in crude oil with various API gravities, even in low-temperature climates
- Benefit from high-activity solutions with a range of RSN and functionalities – water droppers, dryers, and interface (I/F) control
- Create formulations free of nonylphenols (NP) and BTEX and in compliance with OSPAR, REACH, and TSCA

Contact us directly for detailed product information and sample request website | nouryon.com/markets/oilfield email | oilfield@nouryon.com

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Witbreak® demulsifiers selection guide

Ť	Dropper	Dryer	IF control	Dropper	Dryer	IF control
	DRC-163	DRC-163	DRC-163	DRC-163	DRC-163	DRC-163
_	DRC-168	DRC-164	DRC-232	DRC-232	DRC-232	DRC-232
>40	DRC-232	DRC-168	DRL-3134	DRL-3134	DRL-3134	DRL-3134
Λ	DRL-3134	DRC-232	GBG-3172	GBG-3172	GBG-3172	GBG-3172
	DTG-62	DRL-3134				
•	GBG-3172	GBG-3172				
A	Dropper	Dryer	IF control	Dropper	Dryer	IF control
	DRA-21	DRB-11	DRB-11	DRA-21	DRB-11	DRB-11
	DRB-11	DRB-127	DRB-127	DRB-11	DRB-127	DRB-127
	DRB-127	DGE-169	DRC-232	DRB-127	DRC-163	DRC-163
	DRC-232	DGE-182	DGE-182	DRC-163	DRI-9026	DRC-167
	DGE-169	DRI-9026	DRI-9026	DRC-232	DRI-9030	DRC-168
	DGE-182	DRI-9030	DRI-9030	DGE-169	DRI-9037	DRC-232
	DRI-9026	DRL-3134	DRM-9510	DGE-182	DGE-169	DRI-9026
40	DRI-9030	DRM-9510	GBG-3172	DRI-9026	DGE-182	DRI-9030
30-40	DRI-9037	GBG-3172	NEO-110	DRI-9030	DRM-9510	DRI-9037
2	DRM-9510			DRI-9037	GBG-3172	DRM-9510
	GBG-3172			DRM-9510	GBG 3172	DPG-482
	NEO-110			DPG-482		GBG-3172
				GBG-3172		NEO-110
				NEO-110		NEO-120
				NEO-120		NEO-210
				NEO-210		1420 210
V				NEO-230		
A	Dropper	Dryer	IF control	Dropper	Dryer	IF control
	DRB-11	DRB-127	DRC-163	DRA-22	DRA-21	DRC-163
	DRB-127	DRI-9026	DRC-164	DRB-11	DRA-21 DRA-22	DRC-163 DRC-164
	DRB-127 DRC-164		DRC-164 DRM-9510	DRB-11 DRC-163	DRA-22 DRC-164	
-30	DRB-127 DRC-164 DRC-229	DRI-9026	DRC-164	DRB-11 DRC-163 DRC-164	DRA-22	DRC-164 DRC-168 DRM-9510
20-30	DRB-127 DRC-164 DRC-229 DRM-9510	DRI-9026	DRC-164 DRM-9510	DRB-11 DRC-163 DRC-164 DRC-168	DRA-22 DRC-164	DRC-164 DRC-168 DRM-9510
— 20-30 —	DRB-127 DRC-164 DRC-229	DRI-9026	DRC-164 DRM-9510	DRB-11 DRC-163 DRC-164	DRA-22 DRC-164	DRC-164 DRC-168 DRM-9510
20-30	DRB-127 DRC-164 DRC-229 DRM-9510	DRI-9026	DRC-164 DRM-9510	DRB-11 DRC-163 DRC-164 DRC-168	DRA-22 DRC-164	DRC-164 DRC-168 DRM-9510
	DRB-127 DRC-164 DRC-229 DRM-9510	DRI-9026	DRC-164 DRM-9510	DRB-11 DRC-163 DRC-164 DRC-168 DRC-232	DRA-22 DRC-164	DRC-164 DRC-168 DRM-9510
— 20-30 —	DRB-127 DRC-164 DRC-229 DRM-9510	DRI-9026	DRC-164 DRM-9510	DRB-11 DRC-163 DRC-164 DRC-168 DRC-232 DRM-9510	DRA-22 DRC-164	DRC-164 DRC-168 DRM-9510
— 50-30 —	DRB-127 DRC-164 DRC-229 DRM-9510	DRI-9026	DRC-164 DRM-9510	DRB-11 DRC-163 DRC-164 DRC-168 DRC-232 DRM-9510 GBG-3172	DRA-22 DRC-164	DRC-164 DRC-168 DRM-9510
— 50-30 —	DRB-127 DRC-164 DRC-229 DRM-9510 DGE-169	DRI-9026 DRL-3134	DRC-164 DRM-9510 DTG-62	DRB-11 DRC-163 DRC-164 DRC-168 DRC-232 DRM-9510 GBG-3172 DPG-482	DRA-22 DRC-164 DRL-3134	DRC-164 DRC-168 DRM-9510 GBG-3172
— 50-30 —	DRB-127 DRC-164 DRC-229 DRM-9510 DGE-169	DRI-9026 DRL-3134 Dryer	DRC-164 DRM-9510 DTG-62 IF control	DRB-11 DRC-163 DRC-164 DRC-168 DRC-232 DRM-9510 GBG-3172 DPG-482 Dropper	DRA-22 DRC-164 DRL-3134 Dryer	DRC-164 DRC-168 DRM-9510 GBG-3172
 	DRB-127 DRC-164 DRC-229 DRM-9510 DGE-169 Dropper DRC-163	DRI-9026 DRL-3134 Dryer DRC-164	DRC-164 DRM-9510 DTG-62 IF control DRC-164	DRB-11 DRC-163 DRC-164 DRC-168 DRC-232 DRM-9510 GBG-3172 DPG-482 Dropper DRA-21	DRA-22 DRC-164 DRL-3134 Dryer DRA-21	DRC-164 DRC-168 DRM-9510 GBG-3172 IF control DRC-229 DRI-9010
 	DRB-127 DRC-164 DRC-229 DRM-9510 DGE-169 Dropper DRC-163 DRC-164	DRI-9026 DRL-3134 Dryer DRC-164 DRC-229	DRC-164 DRM-9510 DTG-62 IF control DRC-164 DRC-164 DRC-168	DRB-11 DRC-163 DRC-164 DRC-168 DRC-232 DRM-9510 GBG-3172 DPG-482 Dropper DRA-21 DRC-229	DRA-22 DRC-164 DRL-3134 Dryer DRA-21 DRC-229	DRC-164 DRC-168 DRM-9510 GBG-3172 IF control DRC-229 DRI-9010
<20	DRB-127 DRC-164 DRC-229 DRM-9510 DGE-169 Dropper DRC-163 DRC-164 DRC-229	DRI-9026 DRL-3134 Dryer DRC-164 DRC-229 DRI-9026	DRC-164 DRM-9510 DTG-62 IF control DRC-164 DRC-168 DRC-229	DRB-11 DRC-163 DRC-164 DRC-168 DRC-232 DRM-9510 GBG-3172 DPG-482 Dropper DRA-21 DRC-229 DRC-232	DRA-22 DRC-164 DRL-3134 Dryer DRA-21 DRC-229 DRI-9030	DRC-164 DRC-168 DRM-9510 GBG-3172 IF control DRC-229 DRI-9010 DRI-9030 DRI-9037
 	DRB-127 DRC-164 DRC-229 DRM-9510 DGE-169 Dropper DRC-163 DRC-164 DRC-229 DRI-9030	DRI-9026 DRL-3134 Dryer DRC-164 DRC-229 DRI-9026 DRI-9030	DRC-164 DRM-9510 DTG-62 IF control DRC-164 DRC-168 DRC-229 DRI-9026	DRB-11 DRC-163 DRC-164 DRC-168 DRC-232 DRM-9510 GBG-3172 DPG-482 Dropper DRA-21 DRC-229 DRC-232 DRI-9010	DRA-22 DRC-164 DRL-3134 Dryer DRA-21 DRC-229 DRI-9030 DRI-9037	DRC-164 DRC-168 DRM-9510 GBG-3172 IF control DRC-229 DRI-9010 DRI-9030 DRI-9037
 	DRB-127 DRC-164 DRC-229 DRM-9510 DGE-169 Dropper DRC-163 DRC-164 DRC-229 DRI-9030 DRI-9037	Dryer DRC-164 DRC-229 DRI-9030 DRI-9037	DRC-164 DRM-9510 DTG-62 IF control DRC-164 DRC-168 DRC-229 DRI-9026 DRI-9030	DRB-11 DRC-163 DRC-164 DRC-168 DRC-232 DRM-9510 GBG-3172 DPG-482 Dropper DRA-21 DRC-229 DRC-232 DRI-9010 DRI-9030 DRI-9037	DRA-22 DRC-164 DRL-3134 Dryer DRA-21 DRC-229 DRI-9030 DRI-9037 DRM-9510	DRC-164 DRC-168 DRM-9510 GBG-3172 IF control DRC-229 DRI-9010 DRI-9030 DRI-9037 DRM-9510
 	DRB-127 DRC-164 DRC-229 DRM-9510 DGE-169 Dropper DRC-163 DRC-164 DRC-229 DRI-9030 DRI-9037 DRM-9510	DRI-9026 DRL-3134 Dryer DRC-164 DRC-229 DRI-9026 DRI-9030 DRI-9037 DRM-9510	DRC-164 DRM-9510 DTG-62 IF control DRC-164 DRC-168 DRC-229 DRI-9026 DRI-9030 DRI-9037	DRB-11 DRC-163 DRC-164 DRC-168 DRC-232 DRM-9510 GBG-3172 DPG-482 Dropper DRA-21 DRC-229 DRC-232 DRI-9010 DRI-9030	DRA-22 DRC-164 DRL-3134 Dryer DRA-21 DRC-229 DRI-9030 DRI-9037 DRM-9510	DRC-164 DRC-168 DRM-9510 GBG-3172 IF control DRC-229 DRI-9010 DRI-9030 DRI-9037 DRM-9510
 	DRB-127 DRC-164 DRC-229 DRM-9510 DGE-169 Dropper DRC-163 DRC-164 DRC-229 DRI-9030 DRI-9037 DRM-9510 DGE-169	DRI-9026 DRL-3134 Dryer DRC-164 DRC-229 DRI-9026 DRI-9030 DRI-9037 DRM-9510	DRC-164 DRM-9510 DTG-62 IF control DRC-164 DRC-168 DRC-229 DRI-9026 DRI-9030 DRI-9037 DRM-9510	DRB-11 DRC-163 DRC-164 DRC-168 DRC-232 DRM-9510 GBG-3172 DPG-482 Dropper DRA-21 DRC-229 DRC-232 DRI-9010 DRI-9030 DRI-9037 DRM-9510	DRA-22 DRC-164 DRL-3134 Dryer DRA-21 DRC-229 DRI-9030 DRI-9037 DRM-9510	DRC-164 DRC-168 DRM-9510 GBG-3172 IF control DRC-229 DRI-9010 DRI-9030 DRI-9037 DRM-9510

Faster, more effective water removal

Unique solutions from standard acrylates

Our unique solutions are built on the foundation of standard acrylate chemistry to meet your demands for oil/water separation in the field.

We have designed a versatile polyacrylate line of emulsion breakers to facilitate your objectives – fast-dropping functionality along with enhanced drying and interface control characteristics.

In a screening of global oils, our Witbreak® DRM-9510 demulsifier (polyacrylate-based chemistry) exhibited high resiliency across different operating conditions and in oils of various API gravity, including heavy oils below 20°API.



Helping you achieve more

Our solutions help you gain more control while treating and removing excess water from crudes so you can achieve a sharp, well-defined oil/water interface to produce bright, clean, and marketable oil.

Fast water droppers

Achieve faster water dropper functionality in offshore production and separation units with short retention times. During screening, start with our Witbreak® DRC-163, Witbreak® DRC-229, and Witbreak® NEO-230 demulsifiers. For crude oils below 20°API, try our Witbreak® DRM-9510 demulsifier.

Effective dryers and desalters

To minimize BS&W content in separation operations using dryers, look to our Witbreak® DRI-9010, Witbreak® DRI-9026, Witbreak® DRL-3134, and Witbreak® NEO-130 demulsifiers.

Diminish corrosion risks and other problems downstream by using our **Witbreak® DRC-168** demulsifier in refinery desalting units.

Low-temperature solutions

Maximize production in low-temperature climates with our Witbreak® DRC-163, Witbreak® DRC-164, Witbreak® DRI-9026, and Witbreak® DRM-9510 demulsifiers and reduce the need for additional heating to operate separation units.

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Witbreak® demulsifier product portfolio

						Solubility at 10% ²⁾			Functionality 3)			Observed functionallity in							Regulatory			
Product	Description	Activity, %	RSN 1)	Isopropanol	Kerosene	Water	Solvesso 150	Water dropper	Dryer	Interface control	Low temperatures	Crudes with API <20	Crudes with API 20-30	Crudes with API 30-40	Crudes with API >40	Asphaltenic crudes	Paraffinic crudes	Nonylphenol free	OSPAR compliant	REACH compliant	TSCA compliant	
Witbreak® DRA-21	Resin oxyalkylate	84	15	S	D	D	S	•	• •			\Diamond	\Diamond	\Diamond		\Diamond		\langle		\langle	♦	
Witbreak® DRA-22	Resin oxyalkylate	86	20	S		D	S	• •	•	•			\Diamond			\Diamond		♦		\Diamond	♦	
Witbreak® DRB-11	Resin oxyalkylate	54	11	S		-	S	• •	•	•	♦		\Diamond	\Diamond			\Diamond	♦			♦	
Witbreak® DRB-127	Resin oxyalkylate	50	8.7	S	D	-	S	• •	• •	•	♦		\Diamond	\Diamond			\Diamond	♦			♦	
Witbreak® DRC-163	Resin oxyalkylate	84	15	S		-	S	• • • •	• •	• • • •		\Diamond	\Diamond	\Diamond	\Diamond	\Diamond	\Diamond			\Diamond	♦	
Witbreak® DRC-164	Resin oxyalkylate	78	13	S			D	• •	• • •	• •	♦	\Diamond	\Diamond		\Diamond	\Diamond	\Diamond			\Diamond	♦	
Witbreak® DRC-167	Resin oxyalkylate	80	7.5	S	D	-	S			• •				\Diamond			\Diamond				♦	
Witbreak® DRC-168	Resin oxyalkylate	81	21	S	S	-	S	• • •	•	• • •	♦	\Diamond	\Diamond	\Diamond	\Diamond	\Diamond	\Diamond			\Diamond	♦	
Witbreak® DRC-229	Resin oxyalkylate	81	12	S	D	-	S	• •	•	• •	♦	\langle	\Diamond	\Diamond		\Diamond					♦	
Witbreak® DRC-232	Resin oxyalkylate	85	14	S	D	-	S	• • • •	•	• •	♦	\Diamond	\Diamond	\Diamond	\Diamond	\Diamond	\Diamond			\Diamond	♦	
Witbreak® DRL-3134	Resin oxyalkylate	54	14	D	D	-	D	•	• • •	•	♦		\Diamond	\Diamond	\Diamond		\Diamond			\Diamond	\Diamond	
Witbreak® GBG-3172	Resin oxyalkylate	78	11	S		- 1	S	• • • •	• • • •	• • • •	♦		\Diamond	\Diamond	\Diamond	\Diamond	\Diamond			\Diamond	\Diamond	
Witbreak® DRI-9010	Diepoxide	78	5	S	S	D		•	•	•		\Diamond	\Diamond			\Diamond		♦		\Diamond	\Diamond	
Witbreak® DRI-9026	Diepoxide	82	5.7	S	S	- 1	S	•	• • • •	• •	♦	\Diamond	\Diamond	\Diamond		\Diamond	\Diamond	♦		\Diamond	\Diamond	
Witbreak® DRI-9030	Polyacrylate	55	7.5	D			S	• •	• • •	• • •	♦	\Diamond	\Diamond	\Diamond		\Diamond	\Diamond			\Diamond	\Diamond	
Witbreak® DRI-9037	Polyacrylate	61	7.8	S			S	• •	•	•	♦	\Diamond		\Diamond			\Diamond			\Diamond	\Diamond	
Witbreak® DRM-9510	Polyacrylate	55	7.9	S		D	S	• • • • •	• • • •	• • • •	\Diamond	\Diamond	\Diamond	\Diamond		\Diamond	\Diamond			\Diamond	\Diamond	
Witbreak® DTG-62	Polyoxyalkylene glycol	100	23	D		D	S	•		•	\Diamond		\Diamond		\Diamond		\Diamond	\Diamond		\Diamond	\Diamond	
Witbreak® DPG-482	Polyglycol	100	19	S		S	D	•					\Diamond					♦		\Diamond	\Diamond	
Witbreak® DGE-169	Polyglycol ester	100	8.2	S	D		S	• • • •	•	• • •	\Diamond	\Diamond	\Diamond	\Diamond		\Diamond		♦		\Diamond	\Diamond	
Witbreak® DGE-182	Polyglycol ester	98	16	S		S	S	•						\Diamond		\Diamond		♦		\Diamond	\Diamond	
Witbreak® NEO-110	Glycol polyester	80	4.7	- 1			S	•		• •				\Diamond		\Diamond		♦	\Diamond	\Diamond		
Witbreak® NEO-120	Glycol polyester	80	11	I			S	•		•				\Diamond		\Diamond		♦	\Diamond	\Diamond		
Witbreak® NEO-130	Glycol polyester	100	5	I	S	1	S	•	•					\Diamond				♦	\Diamond	\Diamond		
Witbreak® NEO-210	Amine derivative	100	15	S		S	S	• •	•	•	♦	\Diamond		\Diamond		\Diamond	\Diamond	♦		♦		
Witbreak® NEO-220	Amine derivative	100	24	S		S	S			•				\Diamond				♦		\Diamond	\Diamond	
Witbreak® NEO-230	Polyacrylate	100	21	S	I	D	S	• • • •			♦	\Diamond		\Diamond		\Diamond	\Diamond	♦		\Diamond		
Witbreak® NEO-260	Amine derivative	100	20.9	S		S	S			•				\Diamond				♦		♦	♦	

¹⁾ RSN values are based on dioxane/benzene as solvents, whereas for Witbreak® NEO demulsifiers RSN values determination - dimethylisosorbide (DMI)/butyldiglycol (BDG)/xylene

²⁾ S = soluble/clear, D = dispersible/turbid, I = insoluble/phase separation

³⁾ Crude oil origin • North America (1) • Middle East • South America • North Sea • North America (2) • North America (3) • North America (4)

Contact us directly for detailed product information and sample request website | nouryon.com/markets/oilfield email | oilfield@nouryon.com

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Nouryon is a global, specialty chemicals leader. Markets and consumers worldwide rely on our essential solutions to manufacture everyday products, such as personal care, cleaning goods, paints and coatings, agriculture and food, pharmaceuticals, and building products. Furthermore, the dedication of more than 7,900 employees with a shared commitment to our customers, business growth, safety, sustainability and innovation has resulted in a consistently strong financial performance. We operate in over 80 countries around the world with a portfolio of industry-leading brands. Visit our website and follow us @Nouryon and on LinkedIn.

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