

Oilfield Chemical Additives Supplier for

- Drilling
- Completion
- Production
- Stimulation

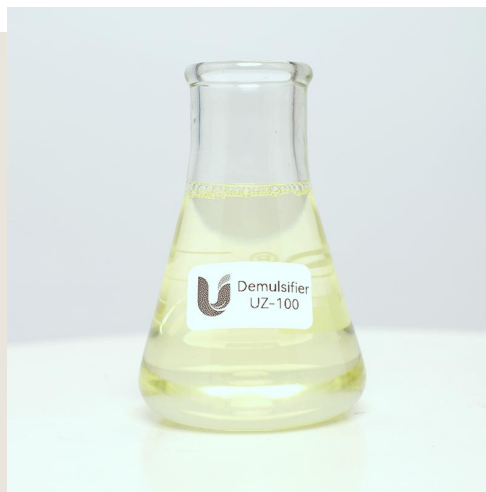
Demulsifier / Emulsion Breaker **UZ-100**



Demulsifier / Emulsion Breaker UZ-100

Demulsifiers, or emulsion breakers, are a class of specialty chemicals used to separate emulsions. Demulsification is used for the separation of water from crude oil. As crude oil is produced from a reservoir it tends to become mixed with either natural formation water or mixed formation and injection water.

As high-quality reserves are depleted, many oil recovery operations are relying increasingly on heavy crude oil reserves. To recover as much oil as possible from these reserves, crude oil demulsification is used for better oil separation. Breaking these emulsions helps to meet production targets, adhere to commercial crude oil specifications, and yield cleaner produced water for discharge or reinjection.



Demulsifier chemicals formulated to complement the crude oil dehydration process and enable efficient desalting of crude oil.

Technical Index

Appearance	Light yellow to Yellow liquid
Active content, %	80
Density, g/cm ³	1.0±0.1
Solubility	Soluble in oil
pH	5-10
Flash point	Beyond 60°C

Product introduction

UZ-100 demulsifier is formulated through the polymerization of ethylene oxide and propylene oxide in a mixed state under alkaline conditions, using phenol resin, polybasic alcohol, and polyethylene polyamine as starting agents. This unique composition enables the demulsifier to effectively destabilize water-in-oil emulsions, playing a crucial role in the separation of water and oil components in the production process.

The UZ-100 demulsifier's application extends to dewatering and desalting formulations within the oil industry. By incorporating this demulsifier into the production process, operators can enhance the efficiency of separating water and salt from the crude oil, contributing to improved product quality and operational effectiveness.

Furthermore, the versatility of the UZ-100 demulsifier is evident in its ability to be blended with various solvents, allowing for the creation of water/oil soluble finished demulsifiers. This adaptability enables the demulsifier to be tailored to specific operational requirements, ensuring

compatibility with diverse production environments and processes.

In summary, the UZ-100 demulsifier, with its unique composition and versatile applications, is instrumental in addressing the challenges associated with water-in-oil emulsions in the oil and related industries. Its role in dewatering, desalting, and enhancing the efficiency of oil production underscores its significance as an essential component in the pursuit of optimal operational performance and product quality.

Dilute the demulsifier to a suitable concentration with a suitable solvent before use (Such as: Aromatic Hydrocarbon). Factors like the nature of the emulsion and the surface equipment determine the injection point of demulsifiers. The demulsifiers can be injected downhole, in the manifold or pipelines and by batch in storage tanks. The first two are most commonly used. Inject it into the end of the pipeline or inject it into the inlet line of the combined station dehydration tank, or into the dehydration tank with the crude oil for demulsification. To ensure the best results, a preferred experiment is required on the demulsifier model before use.

Recommended Handling

All personnel handling this material must handle it as an industrial chemical, wearing protective equipment and observing the precautions as described in the Material Safety Data Sheet.

Packaging and Storage

Packed in 200 Litre drum or 1000 Litre IBC (Tote Tank).

Store in dry, well-ventilated area. Keep container closed. Keep away from heat, sparks and flames. Store away from incompatibles. Follow safe warehousing practices regarding palletizing, banding, shrink-wrapping and /or stacking.

Attachment

1、 Test of appearance

Under the condition of 20 °C ~ 25 °C, visual inspection under natural light.

2、 Test of solid content

Heat and dry the sample to constant weight at (105 ± 2) °C and calculate the mass loss of the sample after drying.

3、 Test methods of flash point

The flash point of the product was determined according to the national standard GB / T 261.

Mechanisms

The demulsification process involves several mechanisms, including:

- **Reducing Interfacial Tension:**** UZ-100 demulsifier reduces the interfacial tension between water and oil, making it easier for the two phases to separate. By lowering the interfacial tension, the demulsifier helps to destabilize the emulsion and promote coalescence of the water droplets, facilitating their separation from the oil phase.
- **Changing Interfacial Properties:**** The demulsifier alters the properties of the water-oil interface, making the emulsion less stable. This alteration disrupts the emulsion structure, allowing the water and oil phases to separate more readily.
- **Dispersion of Emulsified Droplets:**** UZ-100 demulsifier disperses the emulsified water droplets, promoting their coalescence into larger droplets. This process makes it easier for the water phase to separate from the oil phase.

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Youzhu Chem offers a wide range of oil field chemicals widely used in the various stages of oil and gas production. And we have developed the finest quality Oil Soluble Demulsifier, Water Soluble Demulsifier and Corrosion Inhibitors. Our products enable customers to maximize value in their oilfield operations, and increase the overall efficiency of the well.