

# Oilfield Chemical Additives Supplier for

- Drilling
- Completion
- Production
- Stimulation

# Second Emulsifier SEA-100



# **Second Emulsifier SEA-100**

Secondary Emulsifier: SEA-100, is a drilling fluid additive. This Auxiliary emulsifier can be used in Oil based mud, Oilfield drilling fluids.

SEA-100 is a kind of polyquaternary ammonium surfactant, which can regulate HLB of acid solution in emulsion acid system and improve the high temperature stability of emulsified acid.



#### Technical Index

Appearance	Yellow liquid
Solubility in water	Soluble
Solubility in oil	Slight soluble

#### **Product introduction**

In oil field development, hydrochloric acid is commonly used in acidification operations. Hydrochloric acid can react chemically with rocks containing carbonates and dissolve the carbonates in the rocks, thereby expanding pores and cracks, improving the permeability of the oil layer, and promoting the flow and recovery of crude oil. During drilling operations, hydrochloric acid can be used to remove rock cuttings and mud filter cake, thereby restoring the permeability of the oil layer and promoting the productivity of the oil well. Hydrochloric acid also can be used in acidification operations to improve the permeability of the oil layer and increase oil recovery efficiency through chemical reactions with rocks. And hydrochloric acid can be used to remove carbonate deposits from pipelines and equipment to prevent their impact on production equipment.

However, it is very difficult to emulsify hydrochloric acid, especially high concentration hydrochloric acid. High temperature causes rapid demulsification of emulsified acid to lose its function.

SEA-100 is a kind of polyquaternary ammonium surfactant, which can regulate HLB of acid solution in emulsion acid system and improve the high temperature stability of emulsified acid. Polyquaternary ammonium surfactants can be used for emulsification of hydrochloric acid solutions, mainly because of their good surface activity and emulsifying properties. These surfactants contain quaternary ammonium salt groups in their molecular structure, which makes them cationic in aqueous solutions. This cationic nature allows them to form ion pairs with the anionic hydrochloric acid, thereby forming emulsions in aqueous solutions.

In addition, polyquaternary ammonium surfactants also have high dispersion and stability, and can effectively disperse and stabilize the oil phase and water phase together. This allows them

to effectively emulsify the oil phase in hydrochloric acid solutions, forming stable emulsions.

Therefore, due to their surface activity and emulsifying properties, polyquaternary ammonium surfactants can be effectively used for the emulsification of hydrochloric acid solutions, which makes them of important use in several industrial and laboratory applications.

This emulsified acid system can be used to a temperature range of , but is not necessarily limited to, about  $200^{\circ}$  F. to about  $300^{\circ}$  F. (about  $93^{\circ}$  C. to about  $149^{\circ}$  C.).

# **Application**

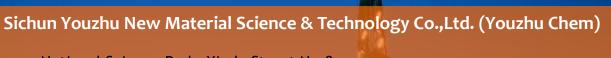
The recommended dosage of SEA-100 is 0.5-2.0% by volume of the total volume of acid and oil. During acid preparing process, the product can be only added into oil instead of water or acid solution. Water-in-oil emulsified acid has the advantages of good permeability, reducing the reaction between acid and water, improving the stability of acid, reducing the corrosion of acid on equipment, and having a wide range of applications. Therefore, it is used in some acidification processes. It has important application value in work.

### **Handling**

Observe warning labels on containers. Normal precautions for industrial chemicals apply.

## **Packaging**

SEA-100 is available in 200kg drum or IBC tanker. 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.



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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.

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