

Additive for mercury removal

Applications

- Crude oil production
- Refinery desalting
- Light hydrocarbon production (includes NGL, LPG, oilfield condensates)
- Dehydration systems (glycol solution)
- Refinery catalyst removal from heavy fuel oil (slurry oil)

Features and Benefits

- Broad applicability
 - Can be applied in variety of different systems and hydrocarbon streams
- Contaminants removal
 - Can help remove other metal contaminants from the hydrocarbon phase
 - Can reduce feedstock contaminants to low ppb levels allowing refinery processing of crude oils reducing:
 - Catalyst poisoning and equipment failures
 - Potential health, safety and environmental (HSE) issues
 - Contamination of final refinery products
- Non-metallic
 - Doesn't create refinery concerns

The ALCHEMIA solution for mercury removal

utilizes a unique additive that is a proprietary, patented formulation designed to remove mercury from hydrocarbons and aqueous streams. This formulation is specifically designed to chelate mercury from hydrocarbon being treated. In oilfield applications, the contaminants settle to the bottom of storage containers where they can easily be removed from the system with tank bottom material. In refining operations, the formulation can transfer the contaminants to brine waters in desalting operations. The chelate made by the formulation are water insoluble and can be removed using normal wastewater treatment processes.

Treatment rate is dependent on the type of hydrocarbon and system parameters. Treatment identifies the combination of chemistries that will maximize the crude quality.

Typical properties

Appearance	Light yellow, clear liquid
pH (neat)	1.0
Odor	Mercaptan (strong)
Flash point (SFCC)	>212°F (>100°C)
Density @ 15.6°C	10.96 lbs/gallon
Viscosity @ 15.6°C	13.2 cP
Pour point	<-45°F (<42°C)

Material compatibility

Suitable

- Metals: Admiralty brass,
- Plastics: Polyethylene HD, polypropylene HD, polyethylene linear, PVC
- Elastomers: TEFLON®

Not suitable

- Metals: Aluminum, copper, mild steel, SS304, SS316
- Elastomers: Buna N, neoprene, CSM, VITON®, EPDM

Materials suitability is based on analysis of test results obtained under specified laboratory conditions. All materials selection should be based on actual application. Testing results for materials will be made available on request.

Safety and handling

Use proper PPE's before handling and store in original containers and follow local regulations. Review the Safety Data Sheet (SDS) for guidance.