

## 7500 BPD Mercaptan Sulfur Oxidation (Merox) Unit for Sale

**Capacity:** 7500 BPD

**Raw Materials:** Kerosene

**Process Information:** This Merox Unit is designed to remove Mercaptan Sulfur from the sour kerosene stream within the refinery to produce a sweet kerosene. Merox stands for MERcaptan OXidation unit. Mercaptan Sulfur are undesirable in kerosene. With this unit, raw kerosene is treated to convert it to Jet A1 Kerosene and sold as aviation fuel.

### Major Equipment

- Caustic Prewash Column
- 1st Sand Filter
- Merox Reactor
- Caustic Settler
- 2nd Sand Filter
- Merox Catalyst Dissolution Pot
- Water Injection Tank
- 25% Caustic Storage Tank
- 7% Caustic Storage Tank
- Hydrochloric Acid Tank
- Blowdown Drum
- Acetic Acid Pot
- Caustic Circulation Pumps
- Water Injection Pump
- KO Drum Pump Out
- Neutralising Pit Pump



### BRIEF PLANT DESCRIPTION

The raw kerosene first enters the Caustic Prewash Vessel, containing a diluted caustic solution used to remove naphthenic and aliphatic acids and any hydrogen sulfide that's present. The prewashed kerosene passes from the top of the prewash vessel to the sand filter, flowing down the top of the filter which coalesces any finely suspended caustic or neutralisation soaps in the kerosene. The haze-free kerosene leaves the sand filter at the lower nozzle and flows to the caustic settler, where any caustic carried over from the prewash vessel and sand filter settles to the base of the vessel. Treated kerosene flows from the caustic settler to the second sand filter through the top and flows downward, filtering any suspended caustic materials. The coalesced material settles to the bottom of the sand filter and the accumulated phase is periodically pressured to the spent caustic neutralizing pit. The treated kerosene leaves the Merox unit and into a storage tank or onto to other streams.

### For more information contact -

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