CAUSTIC WASH SYSTEMS

THE PROBLEM
Caustic Carryover with the Hydrocarbon Stream from Caustic Settler or Disulfide Separator (Refer to Figure 1 below)

By contacting hydrocarbon with mercaptan rich caustic, a very stable emulsion may form in the UOP Merox process. This causes significant quantities of caustic to carry over with the product. Knock-out drums, packed vessels, sand filters, or other conventional coalescers cannot separate these liquid/liquid dispersions. This results in off-specification product due to haze or sodium concentration, in addition to loss of caustic solution. The sodium in the off-specification product may be a catalyst poison to downstream processes.

THE SOLUTION
The Agar Interface Detector (ID-201) is used to control the caustic interface level and therefore the hydrocarbon interface level for either the settler or caustic-disulfide separator. This probe prevents undercarry in both applications. A second probe is used in both the Caustic Settler and Caustic-Disulfide applications to control the emulsion level and prevent carryover.