

PROCESS AND APPARATUS FOR TREATING MERCAPTANS IN A NAPHTHA BOILING RANGE FEED

ABSTRACT

Processes and apparatuses are disclosed for treating a naphtha boiling range stream containing mercaptan compounds. The process includes oxidizing mercaptan compounds in the naphtha boiling range stream to provide a mercaptan-depleted naphtha stream rich in disulfide compounds; passing the mercaptan-depleted naphtha stream rich in disulfide compounds to a naphtha splitter column; and fractionating at least a portion of the mercaptan-depleted naphtha stream rich in disulfide compounds into at least two streams, a light naphtha stream lean in disulfide compounds and a heavy naphtha stream rich in disulfide compounds. The heavy naphtha stream rich in disulfide compounds may be passed to a hydroprocessing unit to convert organic disulfides in the stream to hydrocarbons and hydrogen sulfide. A heavy naphtha stream lean in disulfide compounds can be recovered and routed as desired by the refiner.

[FIGURE 1]