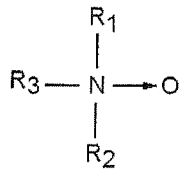
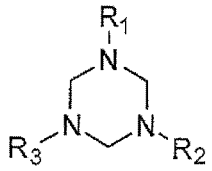
Claims

1. A method of reducing the amount of hydrogen sulfide in a hydrocarbon fluid comprising contacting the fluid with an effective amount of a composition, the composition comprising an alkyl-triazine sulfide scavenger and a nitroxide promoter wherein the amount of nitroxide promoter is from 1-25% of the compositionsufficient to accelerate the scavenging action of the scavenger in comparison to the scavenging action of the scavenger in the absence of the nitroxide promoter,
wherein the nitroxide promoter is a composition of matter according to the formula:



where R_1, R_2 and R_3 are any alkyl group containing 1 - 30 carbon atoms and includes cyclic compounds.

2. The method of claim 1 wherein the alkyl-triazine is a molecule according to the formula:



where R_1, R_2, R_3 are alkyl groups selected from the group consisting of methyl, ethyl, propyl, isopropyl and t-butyl, or CH_2CH_2OH, and R_1, R_2, R_3 are all the same group or one or more different groups.

3. The method of claim 1 wherein the hydrocarbon fluid is liquid.

4. The method of claim 1 wherein the method does not comprise adding halides to the hydrocarbon fluid.

5. The method of any one of the preceding claims, wherein the alkyl-triazine is methyltriazine.

6. The method of any one of the preceding claims, wherein the amount of nitroxide promoter is from 1-25% 2.5%, 5% or 10% of the composition.