

ABSTRACT

A HYDROPROCESSING CATALYST COMPOSITION CONTAINING A HETEROCYCLIC POLAR COMPOUND, A METHOD OF MAKING SUCH A CATALYST, AND A PROCESS OF USING SUCH CATALYST

A composition that comprises a support material having incorporated therein a metal component and impregnated with an additive compound that is selected from the group of heterocyclic, polar compounds of the formula $C_xH_nN_yO_z$; wherein: x is an integer of at least 3; y is either 0, 1, 2, or 3; z is either 0, 1, 2, or 3; and n is the number of hydrogen atoms required to fill the remaining bonds with the carbon atoms of the molecule. The composition includes the support material that is impregnated with the additive compound and is useful in the hydroprocessing of hydrocarbon feedstocks, especially in the denitrogenation and desulfurization of distillate feedstocks to make ultra low sulfur diesel.

(Figure 1)