Summary

In one aspect of the present disclosure, there is provided a method for activating an oxidic fresh hydroprocessing catalyst or the catalytically active material of a spent hydroprocessing catalyst comprising a refractory oxide support and one or more base metals taken from the group comprising nickel, cobalt, molybdenum and tungsten, said method comprising the steps of:

- optionally regenerating the catalyst,

- providing one or more activating solutions containing an organic acid and an alkaline additive, in amounts equivalent to an aqueous activating solution having a target pH higher than 3,

- impregnating the catalytically active material with the one or more aqueous activating solution(s), and

- heat-treating the catalyst at a temperature of 120-450°C.

Description

Accordingly, the present invention relates to a method for activating an oxidic fresh catalyst or the catalytically active material of a spent catalyst comprising a refractory oxide support and one or more base metals taken from the group comprising nickel, cobalt, molybdenum and tungsten, said method comprising the steps of:

- optionally regenerating the catalyst,

- adjusting an aqueous activating solution, which contains an organic acid, to pH > 3 with an alkaline additive,

- impregnating the regenerated catalyst with the pH-adjusted aqueous activating solution, and

- heat-treating the catalyst at a temperature of 120-450°C.

The step of regenerating the catalyst involves removal of deposits, especially combustible deposits, e.g. by thermal oxidation in the presence of oxygen.

The step of adjusting an aqueous activating solution, which contains an organic acid, to a target pH value being above 3 with an alkaline additive, may also be carried out by addition of an amount of an aqueous solution containing an organic acid and addition of an amount of an alkaline additive in two or more steps, wherein the mixing of the amount of an aqueous solution containing an organic acid and the amount of an alkaline additive would have resulted in a solution having pH>3. If the catalyst or catalytically active material is contacted with aqueous solution containing an