



ABSTRACT

The present invention provides an alkoxylation solid catalyst with which an alkylene oxide adduct having a narrow adduct distribution can be produced while inhibiting formation of high molecular weight polyalkylene glycol having a molecular weight of about tens of thousands as a by-product. The alkoxylation catalyst comprises a metal oxide containing magnesium, aluminum, and at least one metal selected from the metals that belong to group VIA, group VIIA, and group VIII as a third component. The third component metal changes the structure of the active site in the catalyst, for example, by forming a metal oxide having a spinel-type structure with aluminum (e.g. when the third component metal is Mn, $MnAl_2O_4$ is formed), so that a side reaction of forming a high molecular weight polyalkylene glycol is inhibited.