

A formed copper catalyst for the hydrogenation of organic compounds is disclosed, especially for the selective hydrogenation of furfural to furfuryl alcohol. The catalyst contains an intimate mixture of a pyrogenic silica, reduced copper and, optionally, a basic oxide as promotor. The catalyst is distinguished by a high specific catalytic activity, selectivities and yields.

**5591878**

**CATALYZED PROCESS FOR  
PRODUCING METAL  
CARBOXYLATES FOR USE AS  
ANIMAL FEED SUPPLEMENTS**

Nelson Christopher; Catron Douglas Des Moines, IA, UNITED STATES assigned to Kemin Industries Inc

A catalyzed process is disclosed for producing a polyvalent metal C2-C3 carboxylate having the formula  $M(\text{CH}_3(\text{CH}_2)_x\text{COO})_y$ , wherein M is the polyvalent metal cation that is manganese ( $\text{Mn}^{+2}$ ), cobalt ( $\text{Co}^{+2}$ ), or chromium ( $\text{Cr}^{+3}$ ), x is zero or 1 and y is an integer equal to the cationic charge of M. The polyvalent metal C2-C3 carboxylate is prepared by admixing (i) a dry polyvalent metal compound that is an oxide, hydroxide or carbonate of  $\text{Mn}^{+2}$ ,  $\text{Co}^{+3}$  or  $\text{Cr}^{+3}$ , (ii) an anhydrous C2-C3 carboxylic acid, and (iii) a catalytic agent at a relative molar ratio of about 1:2-10:0.01-3 in the absence of an added solvent or other diluent to form a reaction mixture. The reaction mixture is heated to complete the reaction, remove the produced water and about 80 percent of the unreacted carboxylic acid. The product in residual carboxylic acid is solidified, ground and the product is recovered. The metal carboxylates can be used as biologically available and economical sources of trace metal ions for supplementation in animal diets.

**5597773**

**ETHYLENE OXIDE CATALYST AND  
PROCESS**

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This invention relates to ethylene oxide catalyst for the vapor phase production of ethylene oxide from ethylene and oxygen prepared by impregnating a porous, refractory support having a surface area ranging from about 0.05 to about 10 m<sup>2</sup>/g with a solubilized catalytically effective amount of silver, a solubilized promoting amount of alkali metal, a solubilized promoting amount of rhenium, and a solubilized promoting amount of hafnium metal, wherein the Group IVB metal is provided in the form of Group IVB oxycation-containing salts. The catalyst provide substantial initial activity improvement as well as long term selectivity and activity stability improvement over prior art rhenium promoted catalyst, without any loss of initial selectivity advantage.

**PETROLEUM AND  
PETROCHEMICALS**

**35406**

**BARIUM TITANIUM  
OXIDE-CONTAINING FLUIDIZABLE  
CRACKING CATALYST  
COMPOSITION**

Groenenboom Cornelis J Driehuis, NETHERLANDS assigned to Akzo N V

A cracking catalyst composition comprising a zeolitic, crystalline aluminosilicate, a matrix material and a barium titanium oxide. The catalyst