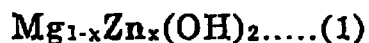


A METHOD OF PRODUCING COMPOSITE METAL HYDROXIDE, COMPOSITE METAL HYDROXIDE OBTAINED THEREBY AND A FLAME RETARDANT HIGH-MOLECULAR COMPOSITION OBTAINED THEREBY AND THEREWITH

ABSTRACT

A composite metal hydroxide is produced by reacting magnesium-containing aqueous solution (X) including water soluble zinc compound wherein magnesium ion concentration is 0.01 to 1 mol/liter with alkaline material (Y) at a specific reaction equivalent ratio. Further, a composite metal hydroxide represented by the following general formula (1) is produced by hydrothermally treating thus obtained composite metal hydroxide within a temperature range of 100 to 200°C for aging in chlorine-containing aqueous solution having a specific chlorine ion concentration.



wherein x indicates a positive number within a range of $0.003 \leq x \leq 0.1$.

A uniform metallic solid solution can be obtained as a composite metal hydroxide by the above series of processes. Further, its crystal shape can be controlled thereby so as to restrain occurrence of secondary aggregation. Still further, a flame retardant high-molecular composition obtained by including thus obtained composite metal hydroxide into a high-molecular composition exerts high flame retardancy and shows superiority in mechanical strength.

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