As shown in Table 1, it was confirmed that when 2-methyl-1-propanol, 1-butanol, 1-pentanol or 1-hexanol was used as an azeotropic agent, it was possible to reduce a concentration of HPA in the water phase of the distillate and as a result, considerably reduce a disadvantageous discharge of the useful HPA as a distillate.

[0032]

<Comparative Example 4>

(In the case of using 2-methyl-2-propanol as an azeotropic agent)

As a distillation apparatus, a 500 mL flask connected with a condenser was used. The 500 mL flask was charged with a mixed solution prepared by mixing 240 parts by mass of the filtrate recovered in Reference Example 2 and 160 parts by mass of guaranteed 2-methyl-2-propanol available from Wako Pure Chemical Industries, Ltd. Next, the mixed solution was subjected to azeotropic distillation under normal pressures while being stirred. The column bottom temperature of the distillation column was 90°C. After from 10 to 12% by mass of the charged filtrate was distilled off, the column bottom temperature began to rise and therefore the distillation procedure was terminated. A whole amount of the distillate was recovered because it was not separated into two phases. At this time, it was confirmed that the concentration of HPA in the distillate was 0.50% by mass.

[0033]

<Example 5>

(Multistage distillation using 2-methyl-~~2-~~propanol as an azeotropic agent)

As a distillation apparatus, used was a 3 L flask connected with a packed column being filled with Raschig rings and having a theoretical plate number of 8 which was further connected at a top thereof with a Dean-Stark trap and a condenser. The flask was charged with a mixed solution prepared by mixing 694 parts by mass of the filtrate recovered in Reference Example 2 and 484 parts by mass of guaranteed 2-methyl-1-propanol available from Wako Pure Chemical Industries, Ltd. Next, the mixed solution was subjected to azeotropic distillation under normal pressures while being stirred. The column bottom temperature of the distillation column was 91°C. At this time, the distillate was separated into two phases. A whole amount of an azeotropic agent phase containing a large amount of 2-methyl-1-propanol in the resulting distillate was refluxed, and only a water phase therein was sampled. The water phase of the distillate, when 34.3% by mass on the basis of the charged filtrate was recovered, had the following composition: HPA: 0.01% by mass; water: 99.9% by mass; and other components: 0.09%

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