

Title (en)
CLEANING ADDITIVE AND CLEANING METHOD USING THE SAME

Title (de)
REINIGUNGSADDITIV UND REINIGUNGSVERFAHREN DAMIT

Title (fr)
ADDITIF DE NETTOYAGE ET PROCÉDÉ DE NETTOYAGE L'UTILISANT

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Application
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Abstract (en)

[origin: WO2014085110A1] The present invention discloses a glass bottle cleaning additive and cleaning method for glass bottles, for use in treatment by cleaning glass bottles in a primary caustic tank and a secondary caustic tank, said cleaning additive consisting of a component A, a component B and a component C, wherein the component A contains an organic phosphine chelating agent, the component B contains a peroxide, and the component C contains an antifoaming agent, the component A is added in the primary caustic tank, the component B is selectively added in the primary caustic tank, the component A and the component B are added in the secondary caustic tank, and the component C is selectively added in the primary caustic tank or the secondary caustic tank. The addition amount of the component A is 0.05%-0.5%, the addition amount of the component B is 0.1%-0.5%, and the addition amount of the component C is 0-0.5%, based on the weight of an caustic solution added in the primary caustic tank or the secondary caustic tank. The caustic solution in said primary caustic tank and said secondary caustic tank is a 1.5%-3% sodium hydroxide solution. The glass bottle cleaning additive and cleaning method for glass bottles of the invention enable a stable and good cleaning effect at a relatively low temperature, usually 50-70 °C.

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Citation (search report)

- [Y] DE 19605356 A1 19970821 - HENKEL ECOLAB GMBH & CO OHG [DE]
- [Y] CA 2454437 A1 20050630 - VIROX TECHNOLOGIES INC [CA]
- [Y] WO 2012123313 A1 20120920 - AKZO NOBEL CHEMICALS INT BV [NL], et al
- [Y] WO 2007080187 A1 20070719 - ASEPTIX TECHNOLOGIES B V [NL], et al

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