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(54) Title: **BIOCIDE COMPOSITION AND RELATED METHODS**

(57) **Abstract:** A biocide composition is formed from a peroxide and a hypochlorite, wherein the biocide composition is formed by adding the peroxide to the hypochlorite in an amount so that the weight ratio of the hypochlorite to the peroxide is no less than about 10:1. A method of producing a biocide composition is carried out by charging to a vessel a quantity of a hypochlorite, and then adding to the hypochlorite so charged a quantity of a peroxide, the weight ratio of the hypochlorite so charged to the peroxide added thereto being no less than about 10:1. A related method is practiced by applying a biocidally effective amount of the biocide composition of the invention to a surface to be decontaminated.