

Title (en)

COMPOUNDS IN MELTED BLOCK FORM CONTAINING ALKALINE HYDROXIDE AND ACTIVE CHLORINE FOR MACHINE DISH-WASHING,  
AND PROCESS FOR THEIR PREPARATION

Publication

**EP 0203526 B1 19910123 (DE)**

Application

**EP 86106948 A 19860522**

Priority

DE 3519355 A 19850530

Abstract (en)

[origin: US4729845A] Detergents for dishwashing machines in the form of fused blocks containing alkali metal hydroxides, alkali metal silicates, and from 0.2 to 4% by weight of active chlorine donors having a hydrolysis constant of  $3 \times 10^{-4}$  or lower (preferably Na- or K-dichloroisocyanurate, Na-dichloroisocyanurate dihydrate, Na-monochloroamido-sulfonate or Na-N-chloro-p-toluene sulfonic acid amide). The process of making the fused blocks comprises heating metasilicate or waterglass solution with or without solid alkali metal hydroxide to 45 DEG to 48 DEG C., allowing the reaction temperature to rise to 60 DEG to 65 DEG C., adding the remaining ingredients including the active chlorine donor at 50 DEG to 65 DEG C., pouring the still liquid melt into flexible molds and allowing it to solidify into blocks therein. The detergent blocks of the invention have good stability to storage and a high dissolving rate in use.

IPC 1-7

**C11D 3/04**; **C11D 3/395**; **C11D 17/00**

IPC 8 full level

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CPC (source: EP US)

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Citation (examination)

Kirk-Othmer:"Encyclopedia of Chemical Technology", Band 4, Seiten 912, 913

Cited by

EP0361380A3; US5066416A; DE4109921C1; EP0245760A3; EP0297273A1; US4915865A; EP0711826A2

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