

Title (en)
ALKALINE HYDROXIDE-CONTAINING COMPOUNDS IN MELTED BLOCK FORM FOR MACHINE DISH-WASHING, AND PROCESS FOR THEIR PREPARATION

Publication
EP 0203523 B1 19910123 (DE)

Application
EP 86106942 A 19860522

Priority
DE 3519353 A 19850530

Abstract (en)
[origin: EP0203523A2] The agents contain, besides 5 to 50% by weight of anhydrous sodium hydroxide, alkali metal silicates, water of crystallisation and penta-alkali metal triphosphate, 0.5 to 5% by weight of organic complexing agents to increase the rate of dissolution, especially sodium citrate dihydrate, Na salts of nitrilotriacetic acid, of ethylenediaminetetraacetic acid, of ethylenediaminetetramethylene- tetraphosphonic acid, of diethylenetriaminepentaphosphonic acid, of 1-hydroxyethane-1,1-diphosphonic acid, of 2-phosphonobutane-1,2,4- tricarboxylic acid. Preparation: alkali metal silicate (metasilicate hydrate or waterglass) is heated, where appropriate together with solid sodium hydroxide, at 45 to 48 DEG C, without influencing the autogenous heating occurring thereby. Other components are added while stirring, lastly, when the melting point has fallen to 50 to 55 DEG C, pentasodium triphosphate and organic complexing agents. The still liquid melt is poured into flexible moulds and left to solidify to blocks. Advantages: no aggregation on exposure to moisture, high speed of dissolution on use.

IPC 1-7
C11D 3/04; C11D 3/08; C11D 3/33; C11D 3/36; C11D 17/00

IPC 8 full level
C11D 3/04 (2006.01); **C11D 3/06** (2006.01); **C11D 3/08** (2006.01); **C11D 3/20** (2006.01); **C11D 3/33** (2006.01); **C11D 3/36** (2006.01); **C11D 17/00** (2006.01)

CPC (source: EP)
C11D 3/062 (2013.01); **C11D 3/08** (2013.01); **C11D 3/2086** (2013.01); **C11D 3/33** (2013.01); **C11D 3/364** (2013.01); **C11D 17/0052** (2013.01)

Cited by
US5490949A; US5665694A; US5419850A; US5425895A; EP0297273A1; AU637972B2; EP0628627A1; EP0245760A3; FR2773169A1; US6017864A; GB2345916A; GB2345916B; US5066416A; US8163686B2; WO9603490A1; EP3574075A1; WO2007052004A1; WO9933948A1; WO9513350A1; WO9402582A1; WO8911753A3; WO0105930A1; WO9603489A1; EP3156475B1

Designated contracting state (EPC)
AT BE CH DE FR GB IT LI NL

DOCDB simple family (publication)
EP 0203523 A2 19861203; EP 0203523 A3 19880323; EP 0203523 B1 19910123; AT E60353 T1 19910215; DE 3519353 A1 19861204; DE 3677057 D1 19910228

DOCDB simple family (application)
EP 86106942 A 19860522; AT 86106942 T 19860522; DE 3519353 A 19850530; DE 3677057 T 19860522