

Title (en)  
Automatic dish-washing machine cleaning process and compositions relating thereto

Title (de)  
Verfahren und Zusammensetzungen zum Reinigen von Geschirrspülmaschinen

Title (fr)  
Procédé et compositions pour le nettoyage de lave-vaisselles

Publication  
**EP 1061123 A1 20001220 (EN)**

Application  
**EP 00303177 A 20000414**

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Abstract (en)  
An automatic dish washing machine cleaner comprises at least 50% wt of the total composition of a partially or fully hydrated organic acid and at least 0.5% wt of the total composition of a surfactant, ideally a non-ionic surfactant. The pH of a 1% aqueous solution of the cleaner at 20 DEG C is 3 or less. Also described are a process for cleaning a dish washing machine comprising adding the above machine dish washing cleaner to a machine, and the use of citric acid monohydrate in a dish washing machine cleaner to prevent mass solidification.

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IPC 8 full level  
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Citation (search report)  
• [X] EP 0256148 A1 19880224 - BENCKISER GMBH JOH A [DE]  
• [A] EP 0612843 A1 19940831 - UNILEVER NV [NL]  
• [A] US 4392977 A 19830712 - ALTENSCHOEPFER THEODOR [DE], et al  
• [A] GB 1396678 A 19750604 - HOECHST AG

Cited by  
FR2831181A1; DE102006009138A1; EP2098587A1; EP2039750A1; DE102012014268A1; DE102012014268B4; US7153817B2; WO0162886A1; WO2007068920A1; WO2006063231A1; WO03035819A1; EP2333042B1

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