

Title (en)  
FOAMING DRAIN CLEANER

Title (de)  
SCHAEUMENDER ABFLUSSREINIGER

Title (fr)  
PRODUIT MOUSSANT POUR DEBOUCHER LES TUYAUX D'ECOULEMENT

Publication  
**EP 1109885 A1 20010627 (EN)**

Application  
**EP 99933815 A 19990708**

Priority  
• US 9915514 W 19990708  
• US 9840998 P 19980831

Abstract (en)  
[origin: WO0012672A1] A composition is provided comprising two liquids which are separately maintained prior to forming an admixture during delivery to a surface to be treated, whereupon the admixture generates a foam sufficient for cleaning efficacy and stability. A first liquid preferably includes a hypohalite, or a hypohalite generating agent and a second liquid preferably includes a peroxygen agent. As the two liquids are initially separated, the hypohalite generating agent can be maintained in an environment free of peroxygen agent and otherwise conducive to their cleaning activity and stability up to the time of use. When the two liquids are allowed to mix, for example, by simultaneously pouring into a drain, the hypohalite and peroxygen react to liberate oxygen gas. As foam generation occurs, the escaping gas contacts surfactant in the solution, and creates foam which expands to completely fill the drain pipe. The expanded foam contains an excess of the hypohalite, which acts to clean the drain. A method of cleaning drains is provided which comprises the step of pouring into a drain at least one liquid which generates foam in situ, the foam characterized by a density of at least about 0.1 g/ml, a half life of greater than about thirty minutes, a foam:liquid volume ratio of at least 1:1, and wherein the foam contains a cleaning-effective amount of a drain cleaning active.

IPC 1-7  
**C11D 17/04**

IPC 8 full level  
**B08B 9/027** (2006.01); **B08B 3/08** (2006.01); **C11D 1/22** (2006.01); **C11D 1/90** (2006.01); **C11D 1/92** (2006.01); **C11D 1/94** (2006.01); **C11D 3/00** (2006.01); **C11D 3/39** (2006.01); **C11D 3/395** (2006.01); **C11D 7/18** (2006.01); **C11D 7/38** (2006.01); **C11D 11/00** (2006.01); **C11D 17/00** (2006.01); **C11D 17/08** (2006.01)

CPC (source: EP KR)  
**C11D 1/22** (2013.01 - KR); **C11D 1/90** (2013.01 - KR); **C11D 1/94** (2013.01 - EP KR); **C11D 3/0005** (2013.01 - KR); **C11D 3/0047** (2013.01 - KR); **C11D 3/0052** (2013.01 - EP); **C11D 3/0094** (2013.01 - EP KR); **C11D 3/3947** (2013.01 - EP); **C11D 3/3956** (2013.01 - EP); **C11D 17/003** (2013.01 - EP); **C11D 17/041** (2013.01 - EP); **C11D 1/22** (2013.01 - EP); **C11D 1/90** (2013.01 - EP); **C11D 2111/20** (2024.01 - EP KR)

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)  
**WO 0012672 A1 20000309**; AR 020254 A1 20020502; AT E358174 T1 20070415; AU 4979199 A 20000321; AU 770222 B2 20040219; AU 770222 C 20050519; BR 9913210 A 20010522; CA 2342248 A1 20000309; CA 2342248 C 20051025; CO 5221039 A1 20021128; DE 69935672 D1 20070510; DE 69935672 T2 20080117; EP 1109885 A1 20010627; EP 1109885 A4 20020612; EP 1109885 B1 20070328; ES 2285847 T3 20071116; JP 2003520282 A 20030702; KR 20010073063 A 20010731

DOCDB simple family (application)  
**US 9915514 W 19990708**; AR P990104237 A 19990824; AT 99933815 T 19990708; AU 4979199 A 19990708; BR 9913210 A 19990708; CA 2342248 A 19990708; CO 99054061 A 19990826; DE 69935672 T 19990708; EP 99933815 A 19990708; ES 99933815 T 19990708; JP 2000567662 A 19990708; KR 20017002579 A 20010227