

Title (en)  
1-HYDROXY-3-SULFONOALKANE-1,1-DIPHOSPHONOUS ACIDS

Title (de)  
1-HYDROXY-3-SULFONOALKAN-1,1-DIPHOSPHONSÄUREN

Title (fr)  
ACIDES 1-HYDROXY-3-SULFONOALCANE-1,1-DIPHOSPHONIQUES

Publication  
**EP 1137651 A1 20011004 (DE)**

Application  
**EP 99958148 A 19991201**

Priority  
• DE 19857251 A 19981211  
• EP 9909337 W 19991201

Abstract (en)  
[origin: DE19857251A1] The present invention relates to 1-hydroxy-3-sulfonopropane-1,1-diphosphonous acids, to phosphonate-containing mixtures which contain said acids, to a method for producing the same and to the application thereof as water treatment chemicals and sequestering agents.

IPC 1-7  
**C07F 9/38; C02F 5/14; C23F 11/167**

IPC 8 full level  
**C02F 5/14 (2006.01); C07F 9/38 (2006.01); C09K 3/00 (2006.01); C09K 8/528 (2006.01); C09K 8/54 (2006.01); C11D 7/36 (2006.01); C23F 11/08 (2006.01); C23F 11/10 (2006.01); C23F 11/167 (2006.01)**

CPC (source: EP KR)  
**C02F 5/14 (2013.01 - EP); C07F 9/38 (2013.01 - KR); C07F 9/3865 (2013.01 - EP); C09K 8/528 (2013.01 - EP); C09K 8/54 (2013.01 - EP); C11D 7/36 (2013.01 - EP); C23F 11/08 (2013.01 - EP); C23F 11/10 (2013.01 - EP); C23F 11/1676 (2013.01 - EP)**

Citation (search report)  
See references of WO 0035926A1

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)  
**DE 19857251 A1 20000615; AU 1558200 A 20000703; CA 2353863 A1 20000622; EP 1137651 A1 20011004; JP 2002532506 A 20021002; KR 20010087419 A 20010915; WO 0035926 A1 20000622**

DOCDB simple family (application)  
**DE 19857251 A 19981211; AU 1558200 A 19991201; CA 2353863 A 19991201; EP 9909337 W 19991201; EP 99958148 A 19991201; JP 2000588184 A 19991201; KR 20017007230 A 20010609**