

Title (en)

IMPROVED BIOCONTROL THROUGH THE USE OF CHLORINE-STABILIZER BLENDS

Title (de)

VERBESSERTE BIOLOGISCHE STEUERUNG DURCH VERWENDUNG VON CHLORSTABILISATORMISCHUNGEN

Title (fr)

BIORÉGULATION AMÉLIORÉE PAR L'INTERMÉDIAIRE DE L'UTILISATION DE MÉLANGES CHLORE-AGENT STABILISATEUR

Publication

EP 2768538 A4 20150520 (EN)

Application

EP 12842036 A 20121012

Priority

- CN 201110328584 A 20111021
- US 201113289547 A 20111104
- US 2012059846 W 20121012

Abstract (en)

[origin: WO2013059074A1] A composition and methods of its use, the composition comprising: a halogen source, urea, and an additional halogen stabilizer excluding urea, optionally an alkali in a concentration sufficient to provide said composition with a pH of greater than 10; and optionally excluding a stabilized bromine compound from said composition is disclosed. Additionally, a method for reducing biological activity in a process stream is disclosed. The method comprises: providing a composition to a process stream, wherein said composition contains: a halogen, urea, and an additional halogen stabilizer excluding urea, optionally an alkali in a concentration sufficient to provide said composition with a pH of greater than 10; and optionally excluding a stabilized bromine compound from said composition. The invention is also directed to compositions and methods of their use as effective biocidal agents for water streams. The composition comprises a halogen source, halogen stabilizers containing a sulfur bearing species and ammonium salts/urea, and an alkali. The sulfur bearing species includes sulfamic acid or its salt equivalent. The ratio between nitrogen mixture of sulfur bearing species and ammonium salts or urea can be optimized at any rate. By having optimized mixing ratio of halogen to stabilizer and that of ammonium salts to sulfamic acid or sulfamate, a synergistic effect occurs which both increases the efficacy of the composition as a biocide and it avoids adverse impacts on other chemicals that are present in the water stream (such as paper additives in pulp and papermaking water streams). Best of all the composition is easy to form and easy to introduce into a water stream of concern. Its introduction can be as simple as mixing two containers of reagent prior to introduction to the water process stream.

IPC 8 full level

A61L 2/16 (2006.01); **A61L 2/06** (2006.01); **A61L 2/07** (2006.01); **D21H 21/00** (2006.01); **D21H 27/00** (2006.01)

CPC (source: EP)

D21H 17/03 (2013.01); **D21H 17/11** (2013.01); **D21H 21/00** (2013.01); **D21H 21/36** (2013.01)

Citation (search report)

- [Y] US 2007178173 A1 20070802 - RICE LAURA E [US], et al
- [Y] WO 03073848 A1 20030912 - ACCULAB CO LTD [KR], et al
- See references of WO 2013059074A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2013059074 A1 20130425; AR 088373 A1 20140528; AU 2012326500 A1 20140227; AU 2012326500 B2 20150910; BR 112014007142 A2 20170404; BR 112014007142 B1 20190806; CA 2844833 A1 20130425; CA 2844833 C 20190618; CN 103053613 A 20130424; CN 109303064 A 20190205; EP 2768538 A1 20140827; EP 2768538 A4 20150520; EP 2768538 B1 20170517; ES 2635119 T3 20171002; JP 2015501307 A 20150115; JP 6110392 B2 20170405; KR 102095212 B1 20200331; KR 20140079767 A 20140627; MY 185106 A 20210430; NZ 620835 A 20150731; PL 2768538 T3 20171031; TW 201323349 A 20130616; TW I546262 B 20160821

DOCDB simple family (application)

US 2012059846 W 20121012; AR P120103878 A 20121018; AU 2012326500 A 20121012; BR 112014007142 A 20121012; CA 2844833 A 20121012; CN 201110328584 A 20111021; CN 201811424802 A 20111021; EP 12842036 A 20121012; ES 12842036 T 20121012; JP 2014537126 A 20121012; KR 20147007838 A 20121012; MY P12014001112 A 20121012; NZ 62083512 A 20121012; PL 12842036 T 20121012; TW 101136772 A 20121005