

Title (en)

Cleaning machine for cleaning bottles or similar containers

Title (de)

Reinigungsmaschine zum Reinigen von Flaschen oder dergleichen Behältern

Title (fr)

Machine de nettoyage pour le nettoyage de bouteilles ou de récipients similaires

Publication

**EP 2303478 B1 20120919 (DE)**

Application

**EP 09731449 A 20090402**

Priority

- EP 2009002404 W 20090402
- DE 102008018105 A 20080409

Abstract (en)

[origin: WO2009124688A1] The invention relates to a machine for cleaning bottles or similar containers (2) using a liquid cleaning medium, such as using a cleaning medium containing sodium hydroxide, chemically reacting with metal, such as with aluminum or an aluminum alloy, on the containers during the treatment, forming hydrogen, having at least one device for venting (8) the machine and for removing air containing hydrogen from the machine as exhaust air by means of at least one outlet (8.1).

IPC 8 full level

**B08B 9/20** (2006.01); **B08B 15/00** (2006.01); **B08B 15/02** (2006.01)

CPC (source: EP)

**B08B 9/20** (2013.01); **B08B 15/00** (2013.01); **B08B 15/02** (2013.01)

Cited by

DE102021123228A1; WO2023036486A1; DE102021128722A1; WO2023078708A1; DE102021128722B4; DE102021128071A1; DE102021128713A1; WO2023072756A1; WO2023078763A1; DE102021115934A1; WO2022268522A1

Designated contracting state (EPC)

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 SE SI SK TR

DOCDB simple family (publication)

**WO 2009124688 A1 20091015**; BR PI0906148 A2 20191015; BR PI0906148 B1 20200623; CN 101980799 A 20110223; CN 101980799 B 20130116; DE 102008018105 A1 20091105; DE 102008018105 B4 20100520; EP 2303478 A1 20110406; EP 2303478 B1 20120919; ES 2390363 T3 20121112; JP 2011516252 A 20110526; JP 5513481 B2 20140604; MX 2010011027 A 20110329; PL 2303478 T3 20130329; PT 2303478 E 20130104; RU 2446897 C1 20120410

DOCDB simple family (application)

**EP 2009002404 W 20090402**; BR PI0906148 A 20090402; CN 200980111619 A 20090402; DE 102008018105 A 20080409; EP 09731449 A 20090402; ES 09731449 T 20090402; JP 2011503364 A 20090402; MX 2010011027 A 20090402; PL 09731449 T 20090402; PT 09731449 T 20090402; RU 2010145331 A 20090402