

Title (en)

DEVICE FOR THE SIMULTANEOUS EVAPORATION AND METERING OF AN EVAPORABLE LIQUID AND ASSOCIATED METHOD

Title (de)

VORRICHTUNG ZUM GLEICHZEITIGEN VERDAMPFEN UND DOSIEREN EINER VERDAMPFBAREN FLÜSSIGKEIT UND ZUGEHÖRIGES VERFAHREN

Title (fr)

DISPOSITIF D'ÉVAPORATION ET DE DOSAGE SIMULTANÉS D'UN LIQUIDE ÉVAPORABLE, ET PROCÉDÉ ASSOCIÉ

Publication

**EP 2435175 A1 20120404 (DE)**

Application

**EP 10725015 A 20100526**

Priority

- EP 2010003222 W 20100526
- DE 102009023010 A 20090528

Abstract (en)

[origin: WO2010136203A1] The invention relates to a device for the simultaneous evaporation and metering of an evaporable liquid and an associated method. Metering devices used hitherto for evaporable liquids which are to be introduced as an additive into large industrial plants, e.g. during crude oil distillation, are not optimal on account of the pump technology selected and the associated maintenance. In order to ensure high and continuous metering accuracy and to make it possible for the additive to be fed to a metering point in gaseous form and in a metered fashion, a device is proposed which has the following components: at least one storage container (1) for the evaporable liquid, a mass flowmeter (5) which is connected downstream of the storage container via a line and measures the mass of liquid led through, a control valve (6) which is connected downstream of the mass flowmeter via a line and can be set in accordance with the metering stipulations, a feed device (7) which makes it possible to feed a carrier gas into a line between control valve and a metering point (9). A further storage container (2) can be connected in parallel. The storage containers can be connected up or isolated separately via connecting valves (3) and (4). The device is suitable in particular for metering trimethylamine into a crude oil distillation column for the purpose of neutralizing the head vapors.

IPC 8 full level

**B01J 4/02** (2006.01); **C10G 7/10** (2006.01)

CPC (source: EP)

**B01B 1/005** (2013.01); **B01J 4/02** (2013.01); **C10G 7/10** (2013.01); **C10G 7/12** (2013.01); **C10G 65/12** (2013.01); **C10G 2300/4056** (2013.01)

Citation (search report)

See references of WO 2010136203A1

Citation (examination)

US 5730804 A 19980324 - GOMI HISASHI [JP], et al

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 SE SI SK SM TR

DOCDB simple family (publication)

**DE 102009023010 A1 20101202**; CN 102448599 A 20120509; EP 2435175 A1 20120404; JP 2012527989 A 20121112; JP 5697267 B2 20150408; RU 2011153691 A 20130710; RU 2528657 C2 20140920; WO 2010136203 A1 20101202

DOCDB simple family (application)

**DE 102009023010 A 20090528**; CN 201080023813 A 20100526; EP 10725015 A 20100526; EP 2010003222 W 20100526; JP 2012512256 A 20100526; RU 2011153691 A 20100526