

Title (en)

Process for drying wet materials, in particular sludge, without the risk of explosion

Title (de)

Verfahren zur Trocknung von Nassgut, insbesondere von Schlamm, ohne Explosionsrisiko

Title (fr)

Procédé de séchage de matières humides, notamment de boues, sans risque d'explosion

Publication

EP 1434019 A1 20040630 (FR)

Application

EP 03300201 A 20031106

Priority

FR 0214036 A 20021108

Abstract (en)

The procedure, involving the use of a gas for drying a wet or damp material, has at least 90 per cent of the drying gas made up of an inert gas such as nitrogen or carbon dioxide. The gas is put into contact with the material being dried during its storage and drying processes, and is injected at a rate that gives an oxygen concentration in the atmosphere not above 0.7 times the maximum oxygen content (MOC). The drying procedure employs a heater with a series of channels mounted in series and/or in parallel and into which nitrogen or CO₂ are injected. The injection system includes a neutralising gas feed (3) to an injection surface (2) on the wall of a hopper (1). One end (31) of the gas feed pipe is connected to the source of a neutralising gas, the other end (32) directed towards the injection surface is closed but has radial outlets (33) delivering the gas into a homogenisation chamber (4).

Abstract (fr)

L'invention concerne un procédé et un dispositif de séchage de matières humides telles que des granulés de farines animales, de granulés ou des poudres alimentaires, des engrais, dans lequel un gaz d'inertage comprenant au moins un gaz inerte choisi parmi l'azote et le dioxyde de carbone est mis au contact des matières humides au cours du séchage. L'invention peut être appliquée au séchage de boues produites lors du traitement biologique d'effluents. <IMAGE>

IPC 1-7

F26B 21/14

IPC 8 full level

F26B 21/14 (2006.01)

CPC (source: EP)

F26B 21/14 (2013.01); **F26B 2200/18** (2013.01)

Citation (search report)

- [XY] EP 0491247 A1 19920624 - STILL OTTO GMBH [DE]
- [YA] WO 0224585 A1 20020328 - SEGHERS BETTER TECHNOLOGY GROU [BE], et al
- [DYA] EP 0659515 A1 19950628 - AIR LIQUIDE [FR]
- [XA] EP 0569999 A1 19931118 - MITSUI PETROCHEMICAL IND [JP]
- [XA] EP 0333329 A2 19890920 - PERMIAN RES CORP [US]
- [X] US 3112188 A 19631126 - WALTER ZEHNDER
- [A] US 5561915 A 19961008 - VANDERGRIFF JOHNIE B [US]
- [A] US 6378753 B1 20020430 - SCHELLEN RALPH [DE], et al
- [A] US 3597833 A 19710810 - FREDERICK OSCAR C, et al
- [A] US 4092784 A 19780606 - DIETRICH ERNST, et al
- [A] DE 10049263 A1 20020411 - BUEHLER AG [CH]
- [A] FR 1471706 A 19670303 - ASS OCTEL

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

FR 2847030 A1 20040514; **FR 2847030 B1 20051202**; AR 042011 A1 20050608; EP 1434019 A1 20040630

DOCDB simple family (application)

FR 0214036 A 20021108; AR P030104110 A 20031107; EP 03300201 A 20031106