Title (en)
Mixer

Title (de)
Mischvorrichtung

Title (fr)
Mélangeur

Publication
EP 0987055 A1 20000322 (DE)

Application
EP 99118275 A 19990915

Priority
DE 29816531 U 19980915

Abstract (en)
The drive shaft unit of a mixing apparatus has an outer shaft (28) and a moving inner shaft (30). One shaft is locked (54) with the mixing tool (16), in a force fit, relative to the direction of mixing tool (16) rotation. The other shaft is connected to the mixing tool shaft so that a relative rotation between the inner (30) and outer (28) shafts gives an axial lock for the mixing tool (16) at the drive shaft unit (18) through the mixing tool drive shaft.

Abstract (de)
Die Erfindung betrifft eine Mischvorrichtung für pharmazeutische, kosmetische und dgl. Produkte, mit einem Mischelement (16), das in einem einen i.w. zylindrischen Innenraum ausbildenden Behälterkörper (10) mittels einer Antriebswelleneinheit (18) antreibbar ausgebildet ist, wobei die Antriebswelleneinheit eine Außenwelle (28) und eine darin bewegbar geführte Innenwelle (30) aufweist, eine der Wellen an einem Eingriffsabschnitt (54) hinsichtlich einer Drehbewegung des Mischelements (16) kraftschlüssig mit diesem verbindbar ausgebildet ist und die andere der Welle mit dem Mischelement (16) so verbindbar ausgebildet ist, dass durch eine Relativdrehung zwischen Innenwelle (30) und Außenwelle (28) die andere der Wellen das Mischelement (16) an der Antriebswelleneinheit (18) bezogen auf eine Axialrichtung derselben festlegt. <IMAGE> <IMAGE>

IPC 1-7 (main, further and additional classification)
B01F 7/00

IPC 8 full level (invention and additional information)
B01F 7/00 (2006.01)

CPC (invention and additional information)
B01F 11/0054 (2013.01); **B01F 7/001** (2013.01); **B01F 7/00583** (2013.01); **B01F 7/00725** (2013.01); **B01F 7/1695** (2013.01)

Citation (search report)
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- [A] WO 8200457 A1 19820218 - PROD RES & CHEM CORP [US]
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- [A] DE 3439975 A1 19850620 - UPAT MAX LANGENSIEPEN KG [DE]
- [PA] EP 0869078 A2 19981007 - SIMPSON STRONG TIE CO INC [US]
- [A] US 4197967 A 19800415 - BAUR FRITZ [DE], et al

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US7168847B2; AU2002242581B2; US6974247B2; WO03084445A1; EP2659958A1

Designated contracting state (EPC)
AT CH FR IT LI NL

EPO simple patent family
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INPADOC legal status

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2003-09-01 [NLV1] NL: LAPSED OR ANNULLED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT

2003-08-15 [REG CH NV] NEW AGENT
- Representative's name : PATENTANWAELTE FELDMANN & PARTNER AG

2003-07-09 [RAP2] TRANSFER OF RIGHTS OF AN EP GRANTED PATENT
- Owner name : WEPA APOTHEKENBEDARF GMBH & CO.KG

2003-03-27 [REG CH EP] ENTRY IN THE NATIONAL PHASE

2003-03-19 [AK] DESIGNATED CONTRACTING STATES:
- Designated State(s) : AT CH FR IT LI NL

2003-03-19 [AX] REQUEST FOR EXTENSION OF THE EUROPEAN PATENT TO:
- Countries : SI

2003-03-19 [PG25 FR] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : FR
- Free text : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT
- Effective date : 20030319

2003-03-19 [PG25 NL] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : NL
- Free text : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT
- Effective date : 20030319

2002-06-19 [17Q] FIRST EXAMINATION REPORT
- Effective date : 20020508

2001-01-11 [REG DE 8566] DESIGNATED COUNTRY DE NOT LONGER VALID

2000-12-06 [AKX] PAYMENT OF DESIGNATION FEES
- Free text : AT CH FR IT LI NL

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- Effective date : 20000920

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2000-03-22 [AX] REQUEST FOR EXTENSION OF THE EUROPEAN PATENT TO:
- Free text : AL;LT;LV;MK;RO;SI