

Title (en)  
LOW VISCOSITY FUNCTIONAL FLUID COMPOSITION

Title (de)  
NIEDRIGVISKOSE FUNKTIONSFLÜSSIGKEITZUSAMMENSETZUNG

Title (fr)  
COMPOSITION DE LIQUIDE FONCTIONNELLE AVEC UNE VISCOSITÉ BASSE

Publication  
**EP 4056669 A1 20220914 (EN)**

Application  
**EP 21162202 A 20210312**

Priority  
EP 21162202 A 20210312

Abstract (en)  
This invention relates to a functional fluid, comprising (A) from 8 to 80% by weight, based on the total composition, of one or more ortho-ester according to formula (I) wherein R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> are independently selected from H or C<sub>1</sub> to C<sub>8</sub> alkyl groups, preferably methyl or butyl, R<sub>4</sub> means H or C<sub>1</sub> to C<sub>8</sub> alkyl, preferably H or methyl, a, b, care independently numbers from 0 to 6, preferably 3 or 4, with the proviso that a+b+c is at least 1, (B) from 10 to 87% by weight, based on the total composition, of one or more alkoxy glycol according to formula (II)  
$$R_{5} - O - (CH_{2} - CH_{2} - O)_{m} - H \quad (II)$$
 wherein R<sub>5</sub> is a C<sub>1</sub> to C<sub>8</sub> alkyl residue, m is a number from 2 to 6, (C) from 0 to 20 wt.-% of at least one compound according to formula (III)  
$$H - O - (CH_{2} - CH_{2} - O)_{k} - H \quad (III)$$
 wherein k is a number of 2 or higher, with the proviso that in at least 80 wt.-% of all compounds according to formula (III) k is 2 or 3, (D) at least one additive, selected from the group consisting of corrosion inhibitor, alkalinity agents, aging protection agents, defoamers and lubricants, the fluid comprising at most 3 wt.-% of an ester between boric acid and a glycol or polyglycol compound, and with the proviso that the combined amount of component (A) and component (B) adds up to at least 70 % of the total fluid weight.

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C-Set (source: EP)  
**C10M 2209/1045 + C10M 2209/1085**

Citation (applicant)  

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- WO 0238711 A1 20020516 - UNION CARBIDE CHEM PLASTIC [US]
- US 4371448 A 19830201 - KNOBLAUCH WOLFGANG [DE], et al
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- WO 2012003117 A1 20120105 - DOW GLOBAL TECHNOLOGIES LLC [US], et al
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- DE 3627432 C2 19901031
- US 2006264337 A1 20061123 - WENDEROTH BERND [DE], et al
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Citation (search report)  

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- [AD] WO 2007005593 A2 20070111 - DOW GLOBAL TECHNOLOGIES INC [US], et al

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