

Title (en)  
METHOD FOR THE CONTROLLED HYDROFORMYLATION AND ISOMERIZATION OF A NITRILE/ESTER/OMEGA UNSATURATED FATTY ACID

Title (de)  
VERFAHREN ZUR GESTEUERTEN HYDROFORMYLIERUNG UND ISOMERISIERUNG EINER NITRIL-/ESTER-/OMEGA-UNGESÄTTIGTEN FETTSÄURE

Title (fr)  
PROCEDE D'HYDROFORMYLATION ET D'ISOMERISATION CONTROLEES D'UN NITRILE/ESTER/ACIDE GRAS OMEGA-INSATURE

Publication  
**EP 3004045 A1 20160413 (FR)**

Application  
**EP 14728226 A 20140606**

Priority  
• FR 1301301 A 20130606  
• EP 2014061899 W 20140606

Abstract (en)  
[origin: WO2014195493A1] The present invention relates to a method for synthesizing a nitrile/fatty ester aldehyde, including the following steps:  
1) hydroformylating a nitrile/ester/ $\omega$  unsaturated fatty acid substrate under specific partial pressure, temperature, reaction time, nitrile/ester/ $\omega$  unsaturated fatty acid reactant conversion rate, catalyst, [substrate]/[metal] molar ratio, and [ligand]/[metal] molar ratio conditions, such as to obtain, from the reaction: a hydroformylation product including at least one nitrile/ester/fatty acid aldehyde of formula:  $\text{OHC}-(\text{CH}_2)_{r+2}-\text{R}$ , and an isomerate including at least one nitrile/ester/internally unsaturated fatty acid isomer, wherein at least 80% of the internal isomer(s) of the isomerate consist of the unsaturated  $\omega-1$  isomer of formula  $\text{CH}_3-\text{CH}=\text{CH}-(\text{CH}_2)_{r-1}-\text{R}$ ; then 2) separating and recovering the nitrile/ester/ fatty acid aldehyde and the isomerate.

IPC 8 full level  
**C07C 67/347** (2006.01); **C07C 51/373** (2006.01); **C07C 59/147** (2006.01); **C07C 69/716** (2006.01); **C07C 253/30** (2006.01); **C07C 255/19** (2006.01)

CPC (source: EP US)  
**C07C 51/373** (2013.01 - EP US); **C07C 67/347** (2013.01 - EP US); **C07C 67/48** (2013.01 - US); **C07C 227/04** (2013.01 - EP US); **C07C 253/30** (2013.01 - EP US); **C07C 253/34** (2013.01 - US)

C-Set (source: EP US)  
1. **C07C 67/347** + **C07C 69/716**  
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3. **C07C 253/30** + **C07C 255/17**  
4. **C07C 253/30** + **C07C 255/19**  
5. **C07C 227/04** + **C07C 229/08**

Citation (search report)  
See references of WO 2014195493A1

Citation (examination)  
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Designated extension state (EPC)  
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