

Title (en)

WATER-EMULSIFIABLE ISOCYANATES WITH IMPROVED PROPERTIES

Title (de)

WASSEREMULGIERBARE ISOCYANATE MIT VERBESSERTEN EIGENSCHAFTEN

Title (fr)

ISOCYANATES ÉMULSIFIABLES DANS L'EAU QUI PRÉSENTENT DES PROPRIÉTÉS AMÉLIORÉES

Publication

**EP 3986944 A1 20220427 (DE)**

Application

**EP 20733967 A 20200618**

Priority

- EP 19182000 A 20190624
- EP 2020067000 W 20200618

Abstract (en)

[origin: WO2020260133A1] The invention relates to a method for preparing a water-emulsifiable polyisocyanate preparation, in which in a first method step (A), a dispersing reaction product (E) is prepared from: at least one diisocyanate, selected from among the group comprising 1,6-hexamethylene diisocyanate, 1,5-pentamethylene diisocyanate, 4,4'-di-(isocyanatocyclohexyl)-methane, 1-isocyanato-3,3,5-trimethyl-5-(isocyanatomethyl)cyclohexane, 2,4- and 2,6-toluylene diisocyanate, tetramethylxylylene-diisocyanate, p-xylylene diisocyanate, and 2,4'- and 4,4'-di-isocyanatodiphenyl methane; and at least one mono- or polyvalent polyalkylene ether alcohol having 2 to 4 C-atoms in the alkylene groups and having a polyether chain containing at least 8 ethylene oxide units, and the resultant reaction product (E) is mixed, in a second method step (B), with at least one (cyclo)aliphatic polyisocyanate with an average NCO functionality of 2.2 to 5.0, preferably 2.5 to 4.0, step (B) being carried out in the presence of an allophanatation catalyst and the conditions being chosen such that allophanate groups are formed from (E) and the polyisocyanate, characterised in that the allophanatation catalyst is at least one salt consisting of a metal cation and at least one dithiophosphate anion.

IPC 8 full level

**C08G 18/08** (2006.01); **C08G 18/10** (2006.01); **C08G 18/22** (2006.01); **C08G 18/28** (2006.01); **C08G 18/70** (2006.01); **C08G 18/76** (2006.01);  
**C08G 18/78** (2006.01); **C08G 18/79** (2006.01)

CPC (source: CN EP US)

**C08G 18/0866** (2013.01 - EP US); **C08G 18/10** (2013.01 - CN EP US); **C08G 18/222** (2013.01 - CN EP US); **C08G 18/283** (2013.01 - EP US);  
**C08G 18/4833** (2013.01 - CN); **C08G 18/706** (2013.01 - EP US); **C08G 18/73** (2013.01 - CN EP); **C08G 18/7621** (2013.01 - CN EP);  
**C08G 18/7837** (2013.01 - EP); **C08G 18/792** (2013.01 - EP); **C09D 175/08** (2013.01 - CN US); **C09J 175/08** (2013.01 - CN);  
**C08G 2150/00** (2013.01 - CN US); **C08G 2170/00** (2013.01 - CN)

Citation (search report)

See references of WO 2020260133A1

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 RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**WO 2020260133 A1 20201230**; CN 114008102 A 20220201; EP 3986944 A1 20220427; US 2022242996 A1 20220804

DOCDB simple family (application)

**EP 2020067000 W 20200618**; CN 202080046037 A 20200618; EP 20733967 A 20200618; US 202017621709 A 20200618