

Title (en)

Titanium trichloride compositions, preparation thereof, catalyst system containing them, and polymerisation of olefins using this system.

Title (de)

Titantrichloridpräparate und deren Herstellung, Katalysatorsysteme die dieses Präparat enthalten und deren Anwendung zur Polymerisation von Olefinen.

Title (fr)

Compositions à base de trichlorure de titane, préparation de celles-ci, système catalytique les contenant et polymérisation des oléfines à l'aide de ce système.

Publication

EP 0000999 A1 19790307 (EN)

Application

EP 78300285 A 19780814

Priority

- GB 2173378 A 19780524
- GB 3634377 A 19770831

Abstract (en)

A titanium trichloride composition has the formula: $\text{TiCl}_3(\text{AlR}_x\text{X}_{3-x})_n\text{EaLb}$ where E is an ether or thioether; L is a defined ester, an amine or a ketone; and a and b are each greater than 0.001 and not more than 0.50. The composition has a low surface area, typically less than $50 \text{ m}^2/\text{g}$. The composition can be prepared by reacting titanium tetrachloride with an organo-aluminium compound, optionally heating the reaction product, contacting the reaction product at an elevated temperature with at least one of E and L and washing the product subsequent to the treatment with E. In the composition, E is conveniently di-n-butyl ether or diisoamyl ether and L can be tetramethylethylenediamine; ethyl benzoate; benzophenone; glycerol monostearate; glycerol triacetate; glycerol tripalmitate; glycerol trimethacrylate; pentaerythritol tetra-acrylate or ethyl phenyl acetate. The composition can be used as a component of a catalyst for the polymerisation of olefine monomers such as propylene. Copolymers having a useful combination of properties can be obtained.

IPC 1-7

C08F 10/00; **C07F 7/00**; **C08F 4/64**

IPC 8 full level

C07F 7/00 (2006.01); **C08F 4/00** (2006.01); **C08F 4/60** (2006.01); **C08F 4/64** (2006.01); **C08F 10/00** (2006.01)

CPC (source: EP US)

C07F 7/003 (2013.01 - EP US); **C08F 10/00** (2013.01 - EP US)

Citation (search report)

- [A] FR 2320308 A1 19770304 - MONTEDISON SPA [IT]
- [A] FR 2314924 A1 19770114 - ICI LTD [GB]
- [A] FR 2099150 A5 19720310 - MITSUI TOATSU CHEMICALS

Cited by

EP0645394A1; US6093833A

Designated contracting state (EPC)

BE DE FR GB NL SE

DOCDB simple family (publication)

EP 0000999 A1 19790307; **EP 0000999 B1 19810527**; AU 3924278 A 19800228; BR 7805647 A 19790410; DE 2860737 D1 19810903; JP S5446191 A 19790411; NZ 188208 A 19800508; US 4203867 A 19800520; US 4370449 A 19830125

DOCDB simple family (application)

EP 78300285 A 19780814; AU 3924278 A 19780824; BR 7805647 A 19780830; DE 2860737 T 19780814; JP 10572778 A 19780831; NZ 18820878 A 19780821; US 9011979 A 19791101; US 93689278 A 19780825