

Title (en)

Hydroxy ether amine friction modifier for use in power transmission fluids and anti-wear additives for use in combination therewith.

Title (de)

Reibungsvermindernde Hydroxyätheramine für Kraftübertragungsflüssigkeiten und Verschleisschutzadditive, die damit verwendbar sind.

Title (fr)

Modificateur de friction à base d'hydroxy ether amine pour fluides de transmission et additifs anti-usure utiles en combinaison avec celui-ci.

Publication

**EP 0353854 A1 19900207 (EN)**

Application

**EP 89306419 A 19890623**

Priority

US 21124088 A 19880624

Abstract (en)

Oleaginous compositions comprising a fuel oil or a lubricating oil, a friction modifying amount of a hydroxy ether amine compound such as that having the formula: <CHEM> where X is O or S, R3 is H, R1 is C18 alkylene, R2 is C3 alkylene, and R4 and R5 are C2 alkylene, and, optionally an amount effective to impart anti-wear properties to the composition of an organic phosphite ester, such as triphenyl phosphite, are disclosed.

IPC 1-7

**C10M 133/08**; **C10M 135/24**; **C10M 139/00**; **C10M 141/10**; **C10M 141/12**; **C10M 167/00**; **C10N 30/06**; **C10N 40/04**; **C10N 60/14**

IPC 8 full level

**C10M 133/08** (2006.01); **C10M 135/24** (2006.01); **C10M 137/02** (2006.01); **C10M 139/00** (2006.01); **C10M 141/10** (2006.01); **C10M 141/12** (2006.01); **C10M 159/12** (2006.01); **C10M 163/00** (2006.01); **C10M 167/00** (2006.01); **C10N 30/06** (2006.01); **C10N 40/04** (2006.01)

CPC (source: EP)

**C10M 133/08** (2013.01); **C10M 135/24** (2013.01); **C10M 139/00** (2013.01); **C10M 141/10** (2013.01); **C10M 141/12** (2013.01); **C10M 167/00** (2013.01); **C10M 2215/042** (2013.01); **C10M 2219/084** (2013.01); **C10M 2219/085** (2013.01); **C10M 2223/045** (2013.01); **C10M 2223/049** (2013.01); **C10M 2227/061** (2013.01); **C10N 2030/06** (2013.01); **C10N 2040/04** (2013.01); **C10N 2040/042** (2020.05); **C10N 2040/25** (2013.01); **C10N 2060/14** (2013.01); **C10N 2070/02** (2020.05)

Citation (search report)

- [X] DE 1906038 A1 19700813 - HUELS CHEMISCHE WERKE AG
- [A] GB 2172284 A 19860917 - CIBA GEIGY AG
- [AD] US 4704217 A 19871103 - SWEENEY WILLIAM M [US], et al
- [A] FR 1299534 A 19620727 - ETHYL CORP

Cited by

US5817605A; CN111108182A; GB2285056A; GB2285056B; EP0617116A1; FR2702772A1; GB2257158A; GB2257158B; WO9321289A1; US10955009B2

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

**EP 0353854 A1 19900207**; **EP 0353854 B1 19930623**; DE 68907288 D1 19930729; DE 68907288 T2 19931021; JP 2807902 B2 19981008; JP H0260996 A 19900301

DOCDB simple family (application)

**EP 89306419 A 19890623**; DE 68907288 T 19890623; JP 15983089 A 19890623