

Title (en)  
SURFACTANT MIXTURES AS COLLECTORS FOR THE FLOTATION OF NON-SULFIDIC MINERALS

Publication  
**EP 0270933 B1 19920722 (DE)**

Application  
**EP 87117456 A 19871126**

Priority  
DE 3641447 A 19861204

Abstract (en)  
[origin: US4790931A] Mixtures of (a) at least one alkyl or alkenyl polyethylene glycol ether which is terminally blocked by a hydrophobic radical, and (b) at least one anion-active surfactant are used as collectors in the flotation of non-sulfide ores.

IPC 1-7  
**B03D 1/00**

IPC 8 full level  
**B03D 1/00** (2006.01); **B03D 1/004** (2006.01); **B03D 1/008** (2006.01); **B03D 1/012** (2006.01); **B03D 1/014** (2006.01)

CPC (source: EP US)  
**B03D 1/0043** (2013.01 - EP US); **B03D 1/008** (2013.01 - EP US); **B03D 1/012** (2013.01 - EP US); **B03D 1/014** (2013.01 - EP US);  
**B03D 2201/02** (2013.01 - EP US); **B03D 2203/04** (2013.01 - EP US)

Cited by  
WO2016041916A1; WO2017162563A2; EP0344553A1; US4995998A; CN112638540A; AU2015316962B2; EA033037B1; EA033037B9;  
WO2018197476A1; WO2020083793A1; US10376901B2; WO2020043829A1

Designated contracting state (EPC)  
DE SE

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**EP 0270933 A2 19880615; EP 0270933 A3 19891025; EP 0270933 B1 19920722**; AU 598069 B2 19900614; AU 8206687 A 19880609;  
BR 8706550 A 19880712; CN 1012420 B 19910424; CN 87107281 A 19880615; DE 3641447 A1 19880609; DE 3780587 D1 19920827;  
FI 83044 B 19910215; FI 83044 C 19910527; FI 875335 A0 19871203; FI 875335 A 19880605; PT 86256 A 19880101; PT 86256 B 19901107;  
TR 24113 A 19910322; US 4790931 A 19881213; ZA 879095 B 19880606

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