

Title (en)

Process for inhibiting or retarding the formation of hydrates in a production effluent

Title (de)

Verfahren zur Hemmung oder Verzögerung der Formation von Hydraten in einem Produktionsabfluss

Title (fr)

Procédé pour inhiber ou retarder la formation ou l'agglomération d'hydrates dans un effluent de production

Publication

EP 0807678 B1 20050907 (FR)

Application

EP 97401004 A 19970505

Priority

FR 9606200 A 19960515

Abstract (en)

[origin: EP0807678A1] The inhibition or retardation of the formation, growth and/or agglomeration of hydrates in the body of a fluid comprising water and a gas, such as natural gas, petroleum or other gases comprises the incorporation of a water soluble homo- or co-polymer derived from a nitrogenous polymer which may be a cationic, amphoteric or neutral monomer chosen from: (i) a monomer (A) of general formula $R'-C(CH_2)-R''-R_1-N-R_2(R_3)$ (I), where: $R' = H$ or Me ; $R'' = -COO-$, $-CO-NH-$, $-CO-NH-CO-NH-$, or $-C_6H_4-$; $R_1 = -(CH_2)_n$, where $n = 1-3$, $-C(CH_3)_2$, $-C(CH_3)_2-(CH_2)_2-$ or $-CH_2-CH(OH)-CH_2-$; $R_2 = H$, Me , Et or $i-Pr$; and $R_3 = H$, Me or Et ; (ii) a monomer (B) of general formula $R'-C(CH_2)-C(O)-NH-R_4$ (II), where: $R' = H$ or Me ; and $R_4 = -C(CH_3)_2-CH_2-$, $CO-CH_3$ or $-CH_2OH$; (iii) a monomer (C) of general formula (IIIa) or (IIIb), where: $R_1 = H$ or Me ; (iv) a monomer (D) of formula (IV), where: $R' = H$ or Me ; and (v) a monomer (E) of general formula $(CH_2=CH-(CH_2))_2-NR_5$ (V), where: $R_5 = C_nH_{2n+1}$, with $n = 1-10$, OH or $(CH_2)_2-CO-NH_2$.

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