

Title (en)

ACID AND ALKALI RESISTANT NI-CR-MO-CU ALLOYS WITH CRITICAL CONTENTS OF CHROMIUM AND COPPER

Title (de)

SÄURE- UND ALKALIRESISTENTE NI-CR-MO-CU-LEGIERUNGEN MIT KRITISCHEN INHALTEN VON CHROM UND KUPFER

Title (fr)

ALLIAGES NI-CR-MO-CU RÉSISTANTS AUX ACIDES ET ALCALINS DOTÉS DE CONTENUS CRITIQUES DE CHROME ET DE CUIVRE

Publication

**EP 2746414 B1 20191211 (EN)**

Application

**EP 13005102 A 20131025**

Priority

- US 201213719369 A 20121219
- US 201313871405 A 20130426
- US 201314055126 A 20131016

Abstract (en)

[origin: EP2746414A1] A nickel-chromium-molybdenum-copper alloy resistant to 70% sulfuric acid at 93°C and 50% sodium hydroxide at 121°C for acid and alkali neutralization in the field of waste management; the alloy contains, in weight percent, 27 to 33 chromium, 4.9 to 7.8 molybdenum, 3.1 to 6.0 wt.% copper (when chromium is between 30 and 33 wt.%) or 4.7 to 6.0 wt.% copper (when chromium is between 27 and 29.9 wt.%), up to 3.0 iron, 0.3 to 1.0 manganese, 0.1 to 0.5 aluminum, 0.1 to 0.8 silicon, 0.01 to 0.11 carbon, up to 0.13 nitrogen, up to 0.05 magnesium, up to 0.05 rare earth elements, with a balance of nickel and impurities. Titanium or another MC carbide former can be added to enhance thermal stability of the alloy.

IPC 8 full level

**C22C 1/04** (2006.01); **C22C 19/05** (2006.01); **C22F 1/10** (2006.01)

CPC (source: EP)

**C22C 1/0433** (2013.01); **C22C 19/053** (2013.01); **C22C 19/055** (2013.01); **C22F 1/10** (2013.01)

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