

Title (en)
Compositions and processes for improved preparation of metals for cold forming.

Title (de)
Zusammensetzungen und Verfahren zur Herstellung von Metallen zur Kaltverformung.

Title (fr)
Compositions et procédé pour la préparation de métaux destinés au travail à froid.

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Application
EP 90108988 A 19900512

Priority
US 35398389 A 19890518

Abstract (en)
Reactive lubrication of phosphated metal surfaces is improved by using a combination of (A) a complexing agent for the divalent metal cations that are displaced from the phosphated layer into the lubricating solution and (B) organic molecules having at least one ether or hydroxyl oxygen for each eight carbon atoms, along with the conventional soluble soap, in the solution used for reactive lubrication. Most preferably, EDTA or its salts are used as the complexing agent and polyethylene glycol as component (B), with the concentration of EDTA being adjusted as needed during the process to keep the concentration of total titratable metals in the lubricating solution below 0.05 % by weight, and the amount of polyethylene glycol being adjusted as needed to maintain the optimum viscosity of the lubricating solution and optimum ratios of reactive to unreacted lube coating weights and of reacted lube coating weight to conversion coating loss.

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