

Title (en)  
BORON-FREE WATER-BASED LUBRICANT FOR PLASTIC WORKING

Title (de)  
BORFREIES WASSERBASIERTES SCHMIERMITTEL FÜR DIE PLASTISCHE VERARBEITUNG

Title (fr)  
LUBRIFIANT À BASE D'EAU EXEMPT DE BORE POUR LE TRAVAIL PLASTIQUE

Publication  
**EP 4174155 A1 20230503 (EN)**

Application  
**EP 21204637 A 20211026**

Priority  
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Abstract (en)  
The present disclosure is directed to an aqueous lubricating composition having utility in the cold working of metallic substrate, said aqueous lubricating composition comprising, based on the weight of the composition: from 1 to 20 wt.% of a) at least one water-soluble inorganic salt, said inorganic salt or salts being in a dissolved state; b) at least one particulate solid lubricant; from 0.1 to 5 wt.% of c) at least one rheological control agent; from 0.1 to 5 wt.% of d) at least one base; and, from 0.1 to 5 wt.% of e) at least one surfactant selected from the group consisting of anionic surfactants, nonionic surfactants, cationic surfactants, amphoteric surfactants and zwitterionic surfactants, wherein said composition is free from boron and boron compounds and is further characterized in that the ratio by weight of b) said at least one solid lubricant to a) said at least one water-soluble inorganic salt [(b):(a)] is from 0.1:1 to 1:1.

IPC 8 full level  
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Citation (applicant)  
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