

Title (en)  
METAL ALLOY COMPOSITIONS AND PROCESS

Title (de)  
METALL-LEGIERUNGSZUSAMMENSETZUNGEN UND HERSTELLUNGSVERFAHREN

Title (fr)  
COMPOSITIONS D'ALLIAGE METALLIQUE ET PROCEDE D'OBTENTION

Publication  
**EP 1322439 A1 20030702 (EN)**

Application  
**EP 01975249 A 20010917**

Priority  
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• US 66670000 A 20000921

Abstract (en)  
[origin: WO0224381A1] A skinless metal alloy composition free of entrapped gas and comprising primary solid discrete degenerate dendrites homogenously dispersed within a secondary phase is formed by process wherein the metal alloy is heated in a vessel to render it a liquid (10). The liquid is then rapidly cooled while vigorously agitating it (12) under conditions to avoid entrapment of gas while forming solid nuclei (14) homogenously distributed in the liquid. Agitation then is ceased when the liquid contains a small fraction solid or the liquid-solid alloy is removed from the source of agitation (12) while cooling is continued to form the primary solid discrete degenerate dendrites in liquid secondary phase. The solid-liquid mixture then can be formed such as by casting.

IPC 1-7  
**B22D 27/08**; **C22C 1/02**; **C22C 1/00**

IPC 8 full level  
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