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(54) Title: EVAPORATIVE N-PROPYL BROMIDE-BASED MACHINING FLUID FORMULATIONS

(57) Abstract: Disclosed is a machining fluid admixture for cooling and lubricating a workpiece/tool interface, wherein the admixture comprises a major amount of n-propyl bromide and a minor amount of a lubricant. In other embodiments, the machining fluid consists essentially of about 30.0 to about 99.99 weight percent n-propyl bromide; from about 0.01 to about 30.0 weight percent of a lubricant; and optionally from 0.0 to about 70.0 weight percent of a fluorinated chemical. In still further embodiments, the machining fluid consists essentially of about 45.0 to about 50.0 weight percent n-propyl bromide; from about 0.01 to about 2.0 weight percent of a lubricant; and from 45.0 to about 50.0 weight percent of a fluorinated chemical. In other aspects, the present invention is directed to methods for cooling and lubricating a tool/workpiece interface. The methods comprise the steps of applying an effective amount of the n-propyl bromide-based machining formulations as disclosed herein to a part during a machining operation so as to cool and lubricate the tool/workpiece interface.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C10M171/00 B28D1/02 B23Q11/10 //C10N40:22,C10N50:02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 022 842 A (YANOME HIDETO ET AL) 8 February 2000 (2000-02-08) page 2, line 24 - line 42	1-7, 13, 16-18, 32
A	column 6, line 56 -column 7, line 41	14, 15, 24-26
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Patent family members are listed in annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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