

PROCESS FOR MAKING GROUP II METAL
OVERBASED SULFURIZED ALKYLPHENOLS

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ABSTRACT OF THE DISCLOSURE

2 The present invention is directed to a novel process for making Group II metal
3 overbased sulfurized alkylphenols, which process uses alkylene carbonate as
4 both a source of carbon dioxide and alkylene glycol. In particular, under the
5 reaction conditions using ethylene carbonate, carbonation time is reduced to
6 about one quarter the time taught in the prior art to make Group II metal
7 overbased sulfurized alkylphenol compositions. The present invention is also
8 directed to a detergent-dispersant additive composition comprising a Group II
9 metal overbased sulfurized alkylphenols, wherein the Group II metal
10 overbased sulfurized alkylphenols have a reduced color as measured by
11 ASTM Test No. D 6045 and an increased hydrolytic stability as measured by
12 a modified ASTM Test No. 2619. The present invention is also directed to a
13 process using ethylene carbonate or alkyl-substituted ethylene carbonate and
14 water for delivering in situ equimolar quantities of ethylene glycol and carbon
15 dioxide for use as reactants in chemical reactions.

No suitable Figure