



(51) International Patent Classification:

C10M 141/12 (2006.01) *C10M 125/26* (2006.01)
C10M 133/16 (2006.01) *C01G 39/00* (2006.01)
C10M 125/10 (2006.01)

(21) International Application Number:

PCT/US2011/052539

(22) International Filing Date:

21 September 2011 (21.09.2011)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

12/890,310 24 September 2010 (24.09.2010) US

(71) Applicant (for all designated States except US): **CHEVRON ORONITE COMPANY LLC** [US/US]; 6001 Bollinger Canyon Road, San Ramon, California 94583 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BHALLA, Gaurav** [IN/US]; 6001 Bollinger Canyon Road, San Ramon, California 94583 (US). **TSANG, Man Hon** [CN/US]; 6001 Bollinger Canyon Road, San Ramon, California 94583 (US).

(74) Agents: **JONES, Josetta I.** et al.; Chevron Corporation, Law Department, Post Office Box 6006, San Ramon, California 94583-0806 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO,

DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:

7 June 2012

(54) Title: PREPARATION OF A MOLYBDENUM IMIDE ADDITIVE COMPOSITION AND LUBRICATING OIL COMPOSITIONS CONTAINING SAME

(57) Abstract: The invention is directed to oil soluble additive compositions, lubricating oil compositions, and additive concentrates. The oil soluble additive composition comprises a salt or complex of (i) a molybdenum component which comprises a molybdenum oxide, sulfide, or oxydisulfide of the general formula MoO_xS_y , wherein $x \geq 0$, $y \geq 0$, and $12 \geq (x+y) \geq 2$; and (ii) an imide wherein said imide comprises the reaction product of at least one dicarboxylic acid component having from about 8 to about 22 carbon atoms, and at least one nitrogen compound selected from ammonia and a polyamine.

