

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷ : C10M 159/18 // C10N 10:12, 30:06		A1	(11) International Publication Number: WO 00/55283
			(43) International Publication Date: 21 September 2000 (21.09.00)
(21) International Application Number: PCT/US00/03911 (22) International Filing Date: 15 February 2000 (15.02.00) (30) Priority Data: 09/268,130 15 March 1999 (15.03.99) US (71) Applicant: UNIROYAL CHEMICAL COMPANY, INC. [US/US]; World Headquarters, Middlebury, CT 06749 (US). (72) Inventors: NALESNIK, Theodore, T. ; P.O. Box 6, Hopewell Junction, NY 12533 (US). MIGDAL, Cyril, A. ; 74 Carter Road, Pleasant Valley, NY 12569 (US). (74) Agent: REITENBACH, Daniel ; Uniroyal Chemical Company, Inc., World Headquarters, Middlebury, CT 06749 (US).		(81) Designated States: AU, BR, CA, IN, JP, KR, MX, SG, ZA, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	
(54) Title: MOLYBDENUM CONTAINING COMPOUNDS AS ADDITIVES FOR LUBRICANT COMPOSITIONS			
$\text{H}_2\text{N}-\text{R}_9-\text{NH}-\text{R}_{10}-\text{W}-\text{R}_8 \quad (I)$			
(57) Abstract A lubricating oil additive is disclosed that comprises the reaction product of: (a) an unsaturated or saturated ester or acid, (b) a diamine of the formula (I): (c) carbon disulfide, and (d) a molybdenum compound, wherein R ₈ is an alkyl group of 1 to 40 carbon atoms, R ₉ and R ₁₀ are independently selected aliphatic or aromatic moieties, W is oxygen, sulfur, or -CH ₂ -. The additive imparts friction modification and beneficial antiwear, extreme pressure, and oxidation stability properties to the lubricating oil.			