

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
26 June 2025 (26.06.2025)



(10) International Publication Number
WO 2025/133963 A1

(51) International Patent Classification:
CI0M 143/12 (2006.01)

(21) International Application Number:
PCT/IB2024/062872

(22) International Filing Date:
19 December 2024 (19.12.2024)

(25) Filing Language: Italian

(26) Publication Language: English

(30) Priority Data:
102023000027540 21 December 2023 (21.12.2023) IT

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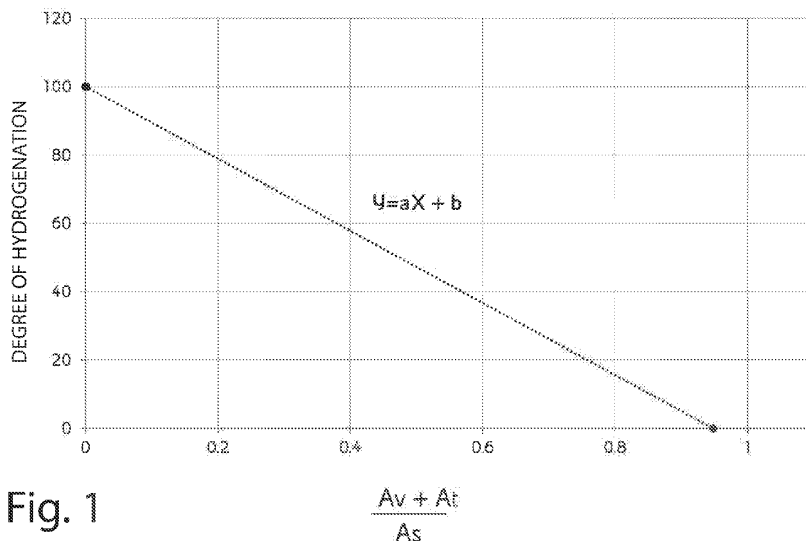
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(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG,
KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY,
MA, MD, MG, MK, MN, MU, MW, MX, MY, MZ, NA,
NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO,
RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH,

(54) Title: VISCOSITY INDEX IMPROVER ADDITIVES OF LUBRICATING OILS AND PROCESS FOR THEIR PREPARATION



(57) **Abstract:** Viscosity index improver (V.I.I.) additive of lubricating oils comprising a hydrogenated linear polybutadiene, said hydrogenated linear polybutadiene having the following characteristics: - weight average molecular weight (M_w) comprised between 1000 Dalton and 40000 Dalton, preferably comprised between 1500 Dalton and 38000 Dalton; - a content of units having configuration 1,2 comprised between 40% by weight and 80% by weight, preferably comprised between 45% by weight and 75% by weight, with respect to the total amount of butadiene units present in said hydrogenated linear polybutadiene; - a polydispersion index (PDI), that is, the ratio between the weight average molecular weight (M_w) and the number average molecular weight (M_n) (M_w/M_n), less than or equal to 1.3, preferably comprised between 1 and 1.1; - a degree of hydrogenation greater than or equal to 98%, preferably comprised between 98.5% and 100%; - a dynamic viscosity, measured at 40°C, comprised between 5 Pa*s and

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TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS,
ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, 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, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

- *with international search report (Art. 21(3))*
- *in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE*

10000 Pa*s, preferably comprised between 10 Pa*s and 8000 Pa*s; - a dynamic viscosity, measured at 100 C, comprised between 0.1 Pa*s and 1000 Pa*s, preferably comprised between 0.2 Pa*s and 500 Pa*s; - an enthalpy of crystallization (ΔH_c), determined by temperature modulated differential scanning calorimetry (TMDSC), comprised between 0 J/g and 1 J/g, preferably comprised between 0 J/g and 0.8 J/g. The aforesaid improver (V.I.I.) additive of lubricating oils is advantageously usable in compositions of lubricating oil such as, for example, compositions of lubricating oil for both diesel and petrol passenger cars, or for heavy duty diesel engines, in functional fluids such as, for example, fluids for manual or automatic transmission, hydraulic fluids, and in industrial lubricants (for example, gear lubricants for wind turbines).