

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
08 June 2023 (08.06.2023)



(10) International Publication Number
WO 2023/102134 A2

- (51) **International Patent Classification:**
A61K 31/05 (2006.01) *A61K 9/10* (2006.01)
- (21) **International Application Number:**
PCT/US2022/051563
- (22) **International Filing Date:**
01 December 2022 (01.12.2022)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
63/284,921 01 December 2021 (01.12.2021) US
- (71) **Applicant: SPOKE SCIENCES, INC.** [US/US]; 15113 Washington Ave. NE, Bainbridge Island, Washington 98110 (US).
- (72) **Inventor: MITCHNICK, Mark;** 15113 Washington Ave. NE, Bainbridge Island, Washington 98110 (US).
- (74) **Agent: WINGER, C. Rachal et al.;** Lee & Hayes PC, 601 W. Riverside Avenue Suite 1400, Spokane, Washington 99201 (US).

(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, 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).

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:

- *without international search report and to be republished upon receipt of that report (Rule 48.2(g))*

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

(54) **Title:** PARTICLES, AQUEOUS DISPERSIONS, AND LIQUID COMPOSITIONS HAVING HIGH LIPOPHILIC COMPONENT CONCENTRATIONS AND HIGH LIPOPHILIC COMPONENT TO SURFACTANT RATIOS

FIG. 13A

Phase	Sr. No.	Ingredient	SKS-31H (% w/w)
Lipid	1	CBD isolate	10.00
	2	Tocopherol	8.00
	3	Span 80	1.76
Aqueous	4	Tween 80	0.99
	5	Water	79.25

(57) **Abstract:** Particles, aqueous dispersions, and liquid compositions having high lipophilic component concentrations and high lipophilic component to surfactant ratios are described. The particles, aqueous dispersions, and liquid compositions can be used to efficiently deliver active compounds and/or active ingredients through a variety of formulation types.

WO 2023/102134 A2