



- (51) International Patent Classification:
B65D 83/38 (2006.01) *B65D 83/32* (2006.01)
- (21) International Application Number:
PCT/US2014/061148
- (22) International Filing Date:
17 October 2014 (17.10.2014)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
61/892,529 18 October 2013 (18.10.2013) US
- (71) Applicant: **ADVANCED TECHNOLOGY MATERIALS, INC.** [US/US]; 129 Concord Road, Billerica, MA 01821 (US).
- (72) Inventors: **KOLAND, Amy**; 12759 Sandy Point Drive, Eden Prairie, MN 55347 (US). **WILSON, Rick**; 5717 Grace Terrace, Edina, MN 55439 (US).
- (74) Agents: **OLSTAD, Stuart, J.** et al.; Christensen Fonder P.A., 33 South Sixth Street, Suite 3940, Minneapolis, MN 55402 (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, BN, 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, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, 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, 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, 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, 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))

(54) Title: DIP TUBE ASSEMBLIES AND METHODS OF MANUFACTURING THE SAME

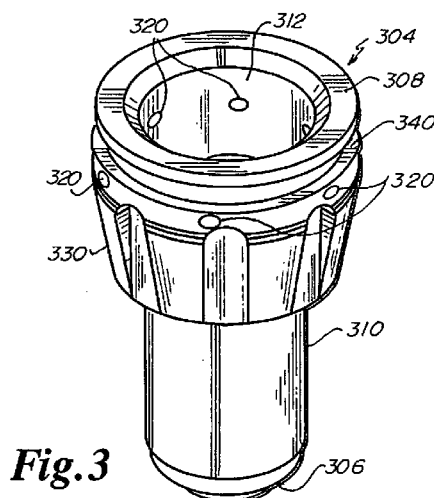


Fig. 3

(57) **Abstract:** A dip tube assembly having a tubular portion and a coupler portion, the coupler configured for removable coupling with the mouth of a container storing contents therein. The coupler portion comprises a first end for connection with a tubular portion; a second end for connection with a connector assembly, wherein the connector assembly provides a pressure to the container; an outer surface and an inner surface with a thickness therebetween, wherein the inner surface defines a lumen that allows the chemical fluid to be conveyed from the chamber through the tubular portion to the connector assembly; and at least one pressure relief feature on the outer surface.

