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(71) Applicant: **ROHM AND HAAS COMPANY** [US/US];
100 Independence Mall West, Philadelphia, Pennsylvania
19106-2399 (US).

(72) Inventors; and

(71) Applicants (*for US only*): **ZHANG, Shiling** [CN/CN];
Room 602, No. 60 Building, 1201 Lane, Changdao Road,
Pudong District, Shanghai 200136 (CN). **BECKER,**
Christian [US/US]; 525 Keebler Road, King of Prussia,
PA 19406 (US). **YAN, Yunfei** [CN/CN]; Room 3# 601,
Chuangxin Road 300#, Pudong, Shanghai 201210 (CN).
CHEN, Yongchun [CN/CN]; Room 701, No 98 Building,
58 Lane, Yingzhun Road, Tangzhen Town, Pudong Dis-
trict, Shanghai 201210 (CN).

(74) Agent: **LIU, SHEN & ASSOCIATES**; A0601, Huibin
Building, No. 8 Beichen Dong Street, Chaoyang District,
Beijing 100101 (CN).

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(54) Title: COMPOSITIONS WITH HOT MELT RESIN MATRIX

(57) Abstract: Provided are compositions comprising a collection of coated particles, wherein the coated particles comprises an active ingredient dispersed in a resin matrix; and a coating comprising at least one hydrophobic compound. Also provided are methods for preparing compositions comprising: (a) blending an active ingredient (for example, 1-MCP complex powder) with resin at the temperature slightly over the melting point of the resin; (b) dispersing the blend into an oil medium containing hydrophobic particles by shearing and obtain an oil dispersion; and (c) consolidating the resin particles by cooling. Thus, the active ingredient (for example, 1-MCP complex powder) is imbedded in the resin matrix spheres, and the hydrophobic particles, which also serve as Pickering emulsifier to stabilize the matrix spheres, form a coating layer around the matrix spheres to provide protection against water. Thus, the sphere is composed of the "Pickering" particle and resin matrix, in which the active ingredient is imbedded.

