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Standard Terminology Relating to Agricultural Tank Mix Adjuvants¹

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1. Scope

1.1 This terminology is used or is likely to be used in test methods, specifications, guides, and practices related to agricultural tank mix adjuvants.

1.2 These definitions are written to ensure that standards related to agricultural tank mix adjuvants are properly understood and interpreted.

2. Referenced Documents

2.1 ASTM Standards:

- D 459 Terminology Relating to Soaps and Other Detergents²
- D 483 Test Method for Unulfonated Residue of Petroleum Plant Spray Oils³
- D 609 Terminology Relating to Pesticides⁴
- D 2140 Test Method for Carbon-Type Composition of Insulating Oils of Petroleum Origin⁵

3. Terminology

3.1 Terms and Definitions:

- absorption**—a process in which one material (the absorbent) takes in and retains another (the absorbate).
- acidifier**—a material that can be added to spray mixtures to lower the pH.
- activator**—a material that increases the biological efficacy of agrichemicals.
- active ingredient**—a component of the formulation that produces a specific effect for which the formulation is designed.
- adjuvant**—a material added to a tank mix to aid or modify the action of an agrichemical, or the physical characteristics of the mixture.
- alkalinity agent**—a material that can be added to the spray mixture to raise the pH.

amphoteric surfactant—a surface-active agent capable of forming, in aqueous solution, either surface-active anions or surface-active cations depending on the pH.

anionic surfactant—a surface-active agent in which the active portion of the molecule containing the lipophilic segment forms exclusively a negative ion (anion) when placed in aqueous solution.

antifoaming agent—a material used to inhibit or prevent the formation of foam.

attractant—a material that attracts specific pests.

buffer or buffering agent—a compound or mixture that, when contained in solution, causes the solution to resist change in pH. Each buffer has a characteristic limited range of pH over which it is effective.

canopy penetrating agent—an adjuvant that increases the penetration of the spray material into the crop canopy. See **deposition aid**.

cationic surfactant—a surface-active agent in which the active portion of the molecule containing the lipophilic segment forms exclusively a positive ion (cation) when placed in aqueous solution.

colorant—a material used to alter the color of the tank mix.

compatibility agent—a surface-active agent that allows simultaneous application of liquid fertilizer and agrichemical, or two or more agrichemical formulations, as a uniform tank mix, or improves the homogeneity of the mixture and the uniformity of the application.

crop oil concentrate—an emulsifiable petroleum oil-based product containing 15 to 20 % w/w surfactant and a minimum of 80 % w/w phytobland oil.

crop oil (emulsifiable)—an emulsifiable petroleum oil-based product containing up to 5 % w/w surfactant and the remainder of a phytobland oil.

crop oil (non-emulsifiable)—See **phytobland oil**.

defoaming agent—a material that eliminates or suppresses foam in the spray tank

deposition aid—a material that improves the ability of agrichemical sprays to deposit on targeted surfaces.

dormant oil—a horticultural spray oil applied during the dormant phase of the targeted plant. (See **horticultural spray oil**.)

drift control agent—a material used in liquid spray mixtures to reduce spray drift.

¹ This terminology is under the jurisdiction of ASTM Committee E35 on Pesticides and Alternative Control Agents and are the direct responsibility of Subcommittee E35.22 on Pesticide Formulation and Application Systems.

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² *Annual Book of ASTM Standards*, Vol 15.04.

³ *Annual Book of ASTM Standards*, Vol 05.01.

⁴ *Annual Book of ASTM Standards*, Vol 11.05.

⁵ *Annual Book of ASTM Standards*, Vol 10.03.