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“High Performance Wetting Agents to Enhance the Surface Properties of Agrochemical Formulations”

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Pesticide active ingredient particles tend to form aggregates or agglomerates in aqueous systems. Therefore it is essential to wet the external as well as the internal surfaces and to displace the air entrapped between the particles in the different dispersion systems such as agrochemical formulations or crop spray liquids. This is usually achieved by the use of surface active agents of ionic or nonionic character. For efficient wetting, the molecules should lower the surface tension of water, diffuse rapidly in solution and quickly become adsorbed at the solid/solution interface [1]. In flowable liquid formulations such as suspension concentrates (SC), the choice of the dispersing and wetting agent combination is essential not only to help the wet milling process during initial preparation but also to maintain long term stability of formulations and to enhance spray applications [2]. In this poster, we present some of our unique products which have excellent properties and are applied as wetting and retention agents for the liquid formulations such as suspension concentrates (SC) and oil dispersion (OD) as well as for the tank mix applications. The wetting agents are based on alkyl polyethylene and -propylene glycol ether. They can reduce the surface tension dramatically with high diffusion rates and without foaming issues which make them special candidates especially for the liquid agrochemical formulations (Fig.1).

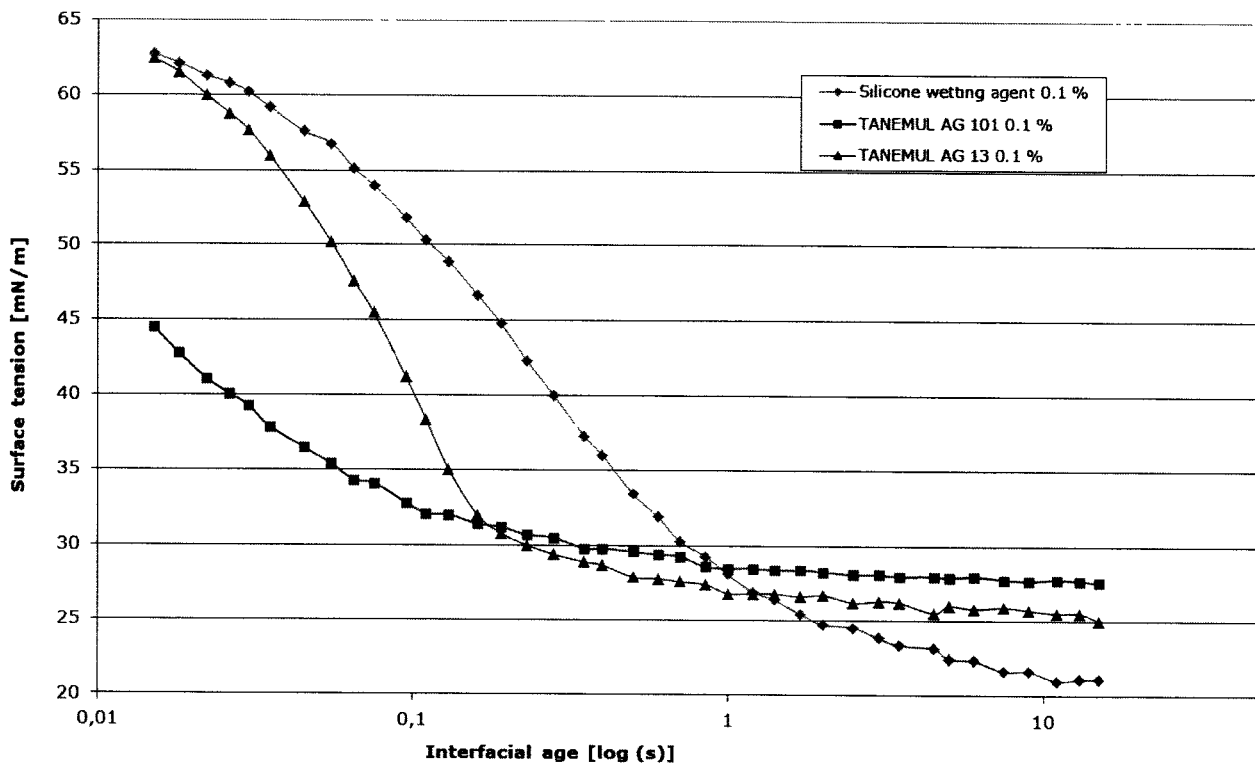


Fig.1: Dynamic surface tension measurements of TANATEX products in comparison to silicone based surfactant.

References

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