

The Right Choice for a Green and Label-Free Multifunctional Emulsifier

^OYusuke Takeuchi and Marcio Navega (Clariant)

[SUMMARY]

Clariant is launching to the agrochemical market a new label-free multifunctional emulsifier named as Emulsogen MTP 070. The composition of this new non-ionic adjuvant is a vegetable based fatty alcohol alkoxylate which provides to the formulator the major benefits:

- Excellent emulsifying capacity for all common crop oils e.g. MSO, paraffinic oil, aromatic oils
- Building block for tank-mix drift control adjuvants
- Recommended for use in EC, EW, OD and SC agrochemical formulations
- Highly compatible emulsifier for ECs with good spontaneity, blooming
- Good handling properties, storage stability & easy to formulate
- High tolerance for water hardness and electrolytes
- Plant compatible at typical emulsifier concentrations
- Low foaming emulsifier
- Label-free formulations

The new Emulsogen MTP 070 combines an outstanding sustainability profile with performance-boosting properties that set it apart from existing nonionic emulsifier options for EC, EW, and OD types of formulations. Extensive laboratory tests confirm that Emulsogen MTP 070 outperforms the emulsification power of traditional emulsifiers in aromatic solvents such as SolvessoTM types, xylene, mineral oil and rapeseed oil.

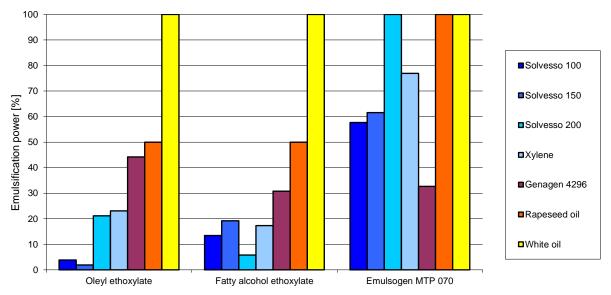


Figure 1. Emulsification properties of Emulsogen MTP 070 compared with other traditional emulsifiers

Emulsogen MTP 070 is multifunctional adjuvant offering excellent emulsification power, low foaming properties, very good solubility in different oils and as robust fine droplets retardant. The product offers highest eco-toxicological profiles, being free of any label and Globally Harmonized System of Classification and Labelling of Chemicals (GHS) hazard statement. In addition, the product carries no skin or eye irritating labels and is not toxic to aquatic life. Moreover, each is readily biodegradable according to OECD Test Guideline 301B and assigned WGK 1 according to the German Water Hazard Classification.

Emulsogen MTP 070 has been awarded Clariant's EcoTain[®] label for their sustainability and performance excellence. EcoTain[®] recognizes products and solutions that significantly exceed sustainability market standards, have best-in-class performance and contribute overall to sustainability efforts of the company and its customers.

ECOTAIN®	Acute oral toxicity OECD 401	Skin irritation OECD 404	Eye irritation OECD 405	Biodegredation OECD 301 B	Fish toxicity OECD 203	WGK (water hazardous class) Labelling
Emulsogen MTP 070	LD50 > 2000 mg/kg	non-irritant	non-irritant	63 % readily biodegradable	LC50 22 mg/l	WGK 1 no labelling required

Figure 2. Labelling and Ecotoxicological profile of Emulsogen MTP 070