# Nouryon

## Armid® FMPC

Agricultural solutions



A powerful optimized solvent blend for EC and SL formulations. Additions of Armid FMPC will increase the solubility of the active ingredient as well as avoid crystallization at low temperature and upon dilution.

Crystals that clog your nozzles during spraying is a common problem that can be avoided by using Armid FMPC

## Crystalization problems? Why use Armid FMPC

- Armid FMPC is Nouryon's new co-solvent for emulsifiable concentrate (EC) and soluble liquid (SL) formulations
- Replaces N-Methylpyrrolidone as crystal inhibitor
- Excellent water solubility; miscible with typical aromatics, glycols and lower alcohols

# Why use Armid FMPC as co-solvent?

- Cost effective; good environmental profile
- Based on a morpholine derivative
- TSCA and DSL listed REACH compliant Not US-EPA listed

#### Armid FMPC: Environmental profile\*

*literature data			
Eye and skin irritation	Eye irritant, may cause allergic reaction		
PBT and vPvB assessment	This substance is not considered to be a PBT (Persistent, Bioaccumulation, Toxic) This substance is not considered to be vPvB (very Persistent nor very Bioaccumulating)		
Biodegradability	>70% DOC, 28 days Readily biodegradable		
Toxicity to algae	EC50 >100 mg/l Exposure time: 72 h Species: Algae		
Toxicity to daphnia	EC50 >500 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea)		
Toxicity to fish	LC50 >500 mg/l Exposure time: 96 h Species: Leuciscus idus (Golden orfe)		
Acute dermal toxicity (rabbit)	LD50 >2000 mg/kg		
Acute oral toxicity (rat)	LD50 >5000 mg/kg		

#### Solubility data

Solvent	5% Armid FMPC at 25°C
Water	miscible
Propylene glycol	miscible
1-Butanol	miscible
2-Ethyl hexanol	miscible
Dimethyl sulfoxide	miscible
Solvesso 150	miscible
Solvesso 200	miscible
Vegetable oil	miscible

### Application examples EC formulations

Ingredient	Function	Concentration
Trifloxystrobin	Fungicide	125 g/l
Witconate P-1460 EH + Ethylan NS-500LQ + Ethylan 954 LQ	Emulsifier blend	90 g/l
Armid FMPC	Co-solvent	200 g/l
Armid DM10	Solvent	q.s. 1 liter
Ingredient	Function	Concentration
Quizalofop-P-ethyl	Herbicide	250 g/l
Berol 9968 + Berol 9969	Emulsifier blend	80 g/l
Armid FMPC	Co-solvent	200 g/l
Solvesso 150 ND	Solvent	q.s. 1 liter
Ingredient	Function	Concentration
Emamectin benzoate	Insecticide	40 g/l
Berol 9927	Emulsifier blend	100 g/l
Armid FMPC	Co-solvent	350 g/l
Solvesso 200	Solvent	q.s. 1 liter
Ingredient	Function	Concentration
Thiobencarb	Herbicide	600 g/l
2,4-D IBE	Herbicide	200 g/l
Sponto 300T + Sponto 500T	Emulsifier blend	60 g/l
Armid FMPC	Co-solvent	30 g/l
Solvesso 100	Solvent	g.s. 1 liter

### Application examples SL formulations

Ingredient	Function	Concentration
Imidacloprid	Insecticide	200 g/l
Adsee 900	Wetting agent	30 g/l
Ethylan NS-500LQ	Anti-cryztallisation agent	10 g/l
Armid FMPC	Solvent	q.s. 1 liter

For more information visit nouryon.com/agriculture

