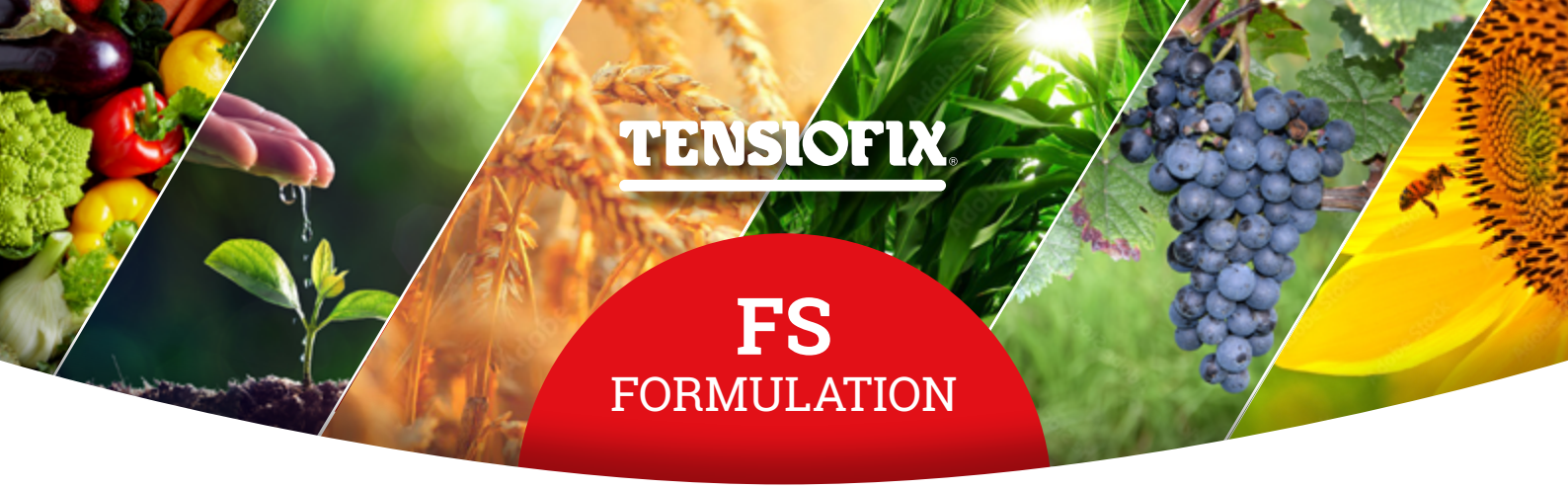

TENSIOFIX®

FS
FORMULATION

TYPICAL FORMULA

Active ingredient(s)	50,00 g/l	to	800,00 g/l
Anti-freeze agent	30,00 g/l	to	100,00 g/l
Surfactant(s)*	20,00 g/l	to	60,00 g/l
Plasticiser/film forming agent	50,00 g/l	to	120,00 g/l
Dye	25,00 g/l	to	150,00 g/l
Thickening agent(s)	1,00 g/l	to	10,00 g/l
Biocide	0,50 g/l	to	1,00 g/l
Antifoam agent	0,50 g/l	to	5,00 g/l
Water	Quantity adjusted to 1 l		

* Wetting-Dispersing agent(s).

DEVELOPMENT STEPS

1 Check the active ingredient (a.i.) properties.

- Solid powder
- Insolubility of the a.i. in water (ideally solubility < 100 ppm)
- High melting point of the a.i. (ideally > 80°C)
- A.i. non sensitive to hydrolysis.

2 Identify the right wetting-dispersing agent(s).

Range of Tensiofix® wetting-dispersing agents

Our alkylphenol free range of wetting-dispersing agents consists in 4 main products:

- Tensiofix® 96 DB 08
- Tensiofix® SC
- Tensiofix® CGA 213
- Tensiofix® XA 265

User guidelines

As first trial, we recommend testing Tensiofix® 96 DB 08 at 3% w/w.

Tensiofix® 96 DB 08 gives good results with a lot of a.i.

In case of crystal growth or viscosity increase, the combination of Tensiofix® 96 DB 08 with another wetting-dispersing agent, still with a total of 3% w/w of surfactants is recommended.

Tensiofix® 96 DB 08	+	Tensiofix® XA 265 Tensiofix® CGA 213 Tensiofix® SC
2,5 % w/w		**0,5 % w/w**

3 Identify the other components:

Anti-freeze agent:
- MEG, DEG, propylene glycol...
- -3% is a minimum for stability; 10% enables a good stability up to -10°C.

Thickening agent
The main families of thickening agents used in our laboratory are natural gums (Tensiofix® 821) and mineral clays.

Antifoam
We use mainly organic antifoam (Tensiofix® LO 51).

Plasticiser/film forming agent
We use a polyacrylate film forming agent (Primal® eco-934 TK).

Dye
Several dye can be used; we use red pigment dispersed into water (added after grinding of the FS) or "crude" red pigments (powders) that need to be added before wet grinding.
Tensiofix® Dye: Tensiofix® ISR 1120.

MATERIAL REQUIRED

- Premix preparation: high shear homogeniser
- Wet grinding: glass beads grinder
- Final homogenisation: simple propeller.

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