

**NEW PHYSICOCHEMICAL DATA FOR ENTOMELA 50SL**

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PHYTOPHYL- N.G Stavrakis gave samples of ENTOMELA 50SL to a private laboratory HELLASCHEM to examine physicochemical and technical properties and submit these data for registration.

The samples first have been analyzed for active substances content and other physicochemical characteristic properties to verify his accordance to specifications. On Next table we see analysis results and specifications limits.

Test parameter	Result	Product specifications	
		Normal value	Limits
Total nitrogen (% w/w)	8.61	8.40	8.00-9.24
Protein equivalent (% w/w)	53.8	52.5	50.00-57.75
Urea nitrogen (%w/w)	8.15	7.93	7.14-8.72
Urea equivalent (%w/w)	17.50	17.00	15.30-18.69
Ammoniacal Nitrogen (w/w)	0.42		Max 1.38
Equivalent ammonium salts as NH <sub>4</sub> Cl (w/w)	1.57		Max 5.30
Chlorine salts as NaCl (w/w)	1.20		Max 2.00
Aminoacid index	0.9		Max 2.00
Dry matter	78.4	78.0	74.0-82.0
Insoluble in water	0.17		Max 0.7
pH (25° C)	6.68	6.75	6.2-8.0 (7.3)*
Density 20° C (g/100ml)	1.346	1.35	1.31-1.39
Form	Surupy liquid	Surupy liquid	
Color	Deep reddish brown	Deep reddish brown	
Odor	Characteristic	Characteristic	
* pH value 7.3 may appear after 1 year of storage. The maximum pH value 8.0 may appear after two years of storage with no other effect on specifications and no			

significant effect on application as when diluted in application rates gives lower pH.

After this verification new tests for Persistent foaming, Viscosity, Surface tension, Dilution stability, pH/acidity, and Physical compatibility was done and the results are given below.

- 1) **Persistent Foaming:** The foam was always **less than 1ml** (CIPAC MT47.1).
- 2) **Viscosity (cSt): 1148** (OECD Test guideline 114).
- 3) **Dilution stability: No material has separated after standing for 24h at 30° C.** (CIPAC MT41.1).
- 4) **Surface tension (mN/m) 20°C 1g/L: 70.6** (Method A5 EC reg. 440/2008)
- 5) **pH/acidity (%w/w H<sub>2</sub>SO<sub>4</sub>) (CIPAC MT191)**
  - **Solution 2%: pH 6.67/ 0.035 %w/w H<sub>2</sub>SO<sub>4</sub>**
  - **Solution 6%: pH 6.57/0.045 %w/w H<sub>2</sub>SO<sub>4</sub>**
  - **Solution 10%: pH 6.48/0.056 %w/w H<sub>2</sub>SO<sub>4</sub>**
  - In all cases the solution gives a pH value lower than the value of the product itself (without dilution).
- 6) **Physical Compatibility** for 4 insecticides formulations (ASTME1518-05).
  - Perfekthion 40 EC /BASF (Dimethoate 40%w/v) : **Compatible**
  - Fastac 10 SC / BASF (Alphacypermethrin 10% w/v): **Compatible**
  - Decis 2,5 EC / Bayer (deltamethrin 2,5% w/v):**Compatible**
  - Karate 10 CS / Syngenta(L-cyhalothrin 9,43% w/w):**Compatible**

### References Table

1. 2342(1)/16.10.2014 HELLASCHEM CERTIFICATE OF ANALYSIS FOR ENTOMELA 50 SL