

# BiesterSOL urea-free

## *The water soluble fertilizer for alkaline soil*

A constant pH value – between neutral and slightly acid – is highly important for the plant growth. As nitrogen from urea needs to be hydrolysed before it can be absorbed by the plant, the application of fertilizers with ureic nitrogen alkalinizes the soil and increases the pH value further into the alkaline range. To avoid this process, **BiesterSOL** urea free only contains nitric and ammoniacal nitrogen to reach or maintain an optimal pH value.

It is made of only the best raw materials of European origin and composed with phosphorus (P) derived from mono-ammoniacal and mono-potassium phosphates as well as potassium derived from nitrate. Each composition is enriched with a special trace element mix containing boron, iron, manganese, copper or zinc to improve the physical-chemical characteristics. **BiesterSOL** urea free is extremely pure and does not contain any harmful substances like chlorine or sodium.

### **Wide range for each stage of vegetation**

**BiesterSOL** urea-free is offered in a wide range of different compositions which provides the correct dosage for each stage from planting until harvesting. Tailor made compositions are available on request.

Being 100% water soluble, **BiesterSOL** urea-free can be used in all kinds of irrigation systems: for drip irrigation and sprinkler systems, for soil grown crops and with hydroponic systems and in greenhouses as well as in open field cultivations. It is the perfect fertilizer for any horticulture, fruit farming, grapes and citrus as well as for floriculture and plant nurseries.

### **Easy handling and application**

Thanks to the use of a unique drying facility during the production process, **BiesterSOL** urea-free contains almost no humidity. This assures that the product does not cake, has an extended shelf life and is always free-flowing. These characteristics increase the solubility and facilitate the dosing. **BiesterSOL** urea-free is packaged in high-quality aluminium bags with a special durability. The application of **BiesterSOL** urea-free is easy and time saving. The high product quality reduces the risk of leaching as well as of any water eutrophication.



**Available in 25 kg and  
10 kg bags and in 2 kg buckets**

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## Composition

	<b>N total</b>	nitr.	amm.	ureic	<b>P P<sub>2</sub>O<sub>5</sub></b>	<b>K K<sub>2</sub>O</b>
19-19-19	19%	10.5%	8.5%	–	19%	19%
25-10-10	25%	12%	13%	–	10%	10%
15-30-15	15%	6%	9%	–	15%	15%
7-13-40	7%	5%	2%	–	12%	40%

## Trace elements

	<b>Fe</b>	<b>B</b>	<b>Mn</b>	<b>Zn</b>	<b>Cu</b>
	Iron chelated EDTA	Boron water soluble	Manganese chelated EDTA	Zinc chelated EDTA	Copper chelated EDTA
all NPK comb.	0.03	0.01	0.02	0.01	0.01

## Chemical and physical characteristics

	<b>pH value</b>	<b>Solubility</b>	<b>Conductivity</b>
	in a solution of 0,1 %	max at 24 °C (in gr./liter H <sub>2</sub> O)	at 24 °C in mS/cm, solution of 0,1 %
19-19-19	5.4	350	1.1
25-10-10	5.8	400	1.0
15-30-15	4.5	250	1.2
7-13-40	4.2	280	1.4

## Dosage

kg/ha in fertirrigation

Horticulture in open field	80 - 100
Horticulture in greenhouse	50 - 80
Fruit farming	100 - 150
Vine	100 - 150
Citrus	100 - 150
Floriculture	30 - 50

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