

## INSTRUCTIONS FOR USE

### SOIL IMPROVER PH-98 SOIL ACIDITY NEUTRALIZER (granules)

CAS №: 471-34-1

EINECS №: 207-439-9

Soil acidification is the result of various external factors (mainly fertilizing with nitrogen fertilizers, acid rains, etc.), as well as ongoing processes in soils in the cultivation of various crops. The content of aluminum and magnesium in the various soil is essential for the processes of acidification.

The increased soil acidity is harmful for plants, as it inhibits and detains the normal growth during the entire vegetation period.

#### Soil classification in terms of acidity

Degree of acidity	pH (1n KCl)
Very high acid	up to 4,0
High acid	4,0-4,5
Med acid	4,6-5,0
Low acid	5,1-5,6
Neutral	over 5,6

#### Liming

Liming have to be conducted regularly on the basis of establishing pH of the soil solution and reporting the contents of nutrients, humus, aluminum and magnesium. Liming regulate the absorption of nutrients and achieve better yields and greener production. Liming is best to be done before the autumn precipitation season, but spring crops and other plants likely to take place in early spring. In both cases, after incorporation it is advisable to carry out machining of soil, so that PH-98 to be distributed more evenly in the soil.

#### Rate of liming

*The rate of liming depends on many factors (acidity of soil, structural and chemical composition of soils, climatic factors, etc.) and established neutralizing ability of improver used. There are various empirical equations to calculate the rate of liming of acidified soils. To achieve the desired pH 6.8 is recommended annually liming using smaller rates of liming. In the attached tables are presented neutralizing ability of soil improver PH-98 and proposed sample soft norms of liming with PH-98. Composition and performance of PH-98 meets the requirements of EU for organic farming.*

#### Neutralizing ability determination

##### PH-98

Neutralizing ability is determined by the method of Tredvel and it is measured in mEq/100 g material and sludge in grams are required to neutralize 1 mEq acidity /n/.

Product	Neutralizing ability	
	mEq/100gr	/n/-gr/1mEq
PH-98	2700	0,037

#### Liming rates of PH-98-kg/ha

Liming rates are defined until reaching the optimum pH range in salty suspension with 1n KCl.

Average rates (kg PH-98 for 1 ha) of liming depending on pH and mechanical composition of soil						
Soils	pH (1n KCl)					
	up to 4,5	4,6	4,8	5,0	5,2	5,1-5,5
Sandy and light clay soils	350	300	260	220	175	100
Medium and heavy clay soils	525	470	440	390	350	300

**The accurate rates for liming with PH-98 are determined using the balance method, after a chemical analysis of soil.**

Depend on the type of soil, the thickness of the soil layer, the type of crop to be grown.