

LIQUID

DESCRIPTION

HUMAGRA® NPK 10-0-3 + HA Liquid is an organomineral fertilizer which contains humic acids, nitrogen, and potassium. Beside providing these macronutrients to supplement plant nutrition, the product acts as a soil conditioner and plant growth stimulant. It is a permanent humic substance, which is relatively slowly decomposed by microorganisms of the soil. **HUMAGRA® NPK 10-0-3 + HA Liquid** can be used alone or mixed with most fertilizers.

ORIGIN

HUMAGRA® NPK 10-0-3 + HA Liquid is obtained through alkaline extraction from German Leonardite (highly oxidized lignite), with addition of soluble nitrogen sources. Leonardite arises from the chemical and biological humification of plants and other organic matter, by biological activity and geological processes. This formulation provides a very high content of humic and fulvic acids and a high quantity of nitrogen and potassium.



COMPOSITION: (Typical analysis)

Potassium humate	15.0%
Organic matter	15.0%
Total Nitrogen (N)	10.0%
Water soluble N -content	9.0%
Total potassium (in K ₂ O)	3.0%
pH value	9
Product type	Liquid

FORM OF DELIVERY



IBC container (Intermediate Bulk Container) Can 5 L, 10 L, and 20 L Bottle 1 L

Organomineral Liquid Fertilizer



Macro Nutrients and Humic Acids FOR SOIL AND FOLIAR APPLICATION

BENEFITS

HUMAGRA® NPK 10-0-3 + HA Liquid provides positive fertilizing and soil-conditioning effects, specially in sandy and heavy soils. The product can be applied to all agricultural and horticultural crops, either directly to the soil or as a foliar spray.

- Increases crop yield and quality
- Supports the plant with different forms of nitrogen
- Improves the soil structure and the water retention capacity
- Increases and stimulates beneficial soil microorganisms
- Enhances the soil cation exchange capacity (CEC)
- Increases the effectiveness of fertilizers and reduces nutrient losses
- Promotes root development
- Increases nutrient uptake
- Acts as a natural chelator for microelements in alkaline soils and increases their availability to plants
- Decreases stress by drought and/or application of plant treatments
- Increases the germination of seeds
- Reduces the residues of herbicides and toxic substances in the soils
- Prevents nitrate leaching

DIRECTIONS FOR USE* HUMAGRA® NPK 10-0-3 + HA Liquid

CROP	OBJECTIVE	RECOMMENDED APPLICATION
In all crops	Soil conditioning, increasing of soil fertility and fertilizer utilisation, nitrogen supplementation	25-30 L/ha divided into several doses (1-2 kg/ha) during the season
Vegetables in greenhouses	Soil conditioning, increasing of soil fertility and fertilizer utilisation, nitrogen supplementation	35-45 L/ha divided into several doses (5-10 L/ha) during the season
Horticultural fruit trees	Soil conditioning, increasing of soil fertility and fertilizer utilisation, nitrogen supplementation	35-45 L/ha divided into several doses (5-10 L/ha) during the season
Open field vegetables	Soil conditioning, increasing of soil fertility and fertilizer utilisation, nitrogen supplementation	25-30 L/ha divided into several doses (5-10 L/ha) during the season and at fertilizer application
Cereals, potatoes, legumes	Soil conditioning, increasing of soil fertility and fertilizer utilisation, nitrogen supplementation	25-30 L/ha divided into several doses (5-10 L/ha) during the season and at fertilizer application
Ornamental plants and tree nursery, landscaping, turf grass (in general)	Soil conditioning, increasing of soil fertility and fertilizer utilisation, nitrogen supplementation	35-45 L/ha divided into several doses (5-10 L/ha) during the season or 5 L/m ³ during the preparation of substrates
Foliar application	Growth stimulation, increasing of foliar fertilizer penetration, nitrogen supplementation	0.700-1.5 L/1000 L water every two weeks during the season
UV protection	Prevention of decomposition of ultraviolet-unstable agents	0.5% (1 L/200 L water/ha)

* This recommendation may be varied according to the soil characteristics and local conditions



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