



ACTIVATORS	A.T.S.	K.T.S.
Total Nitrogen (N)	12	-
Ammonium Nitrogen (N)	12	-
Potassium (K2O) water soluble	-	25
Sulphuric Trioxide (SO <sub>3</sub> ) water soluble	65	42

### ACTIVATORS **BASED ON THIOSULPHATE**

### LIQUID FERTILIZERS FOR FERTIGATION CONTAINING NITROGEN, POTASSIUM AND SULPHUR AS THIOSULPHATE ION

These products are unusual in that they contain Sulphur as the thiosulphate ion. This ion has a strong reducing activity towards all the microelements and in particular Iron and Manganese. Microelements, already contained in the soil or supplied through specific treat-ments. are quickly oxidised becoming unavai-lable to the root system. Treatments with thiosulphates can reduce metal oxides making them available for the crop. Tests carried out show that after treatment symptoms of iron chlorosis have been overcome. Ferric ions (Fe3+) are present in the soil but unavailable to the plant: treatment with thiosulphate ion reduces the iron to ferrous ions (Fe2+) which are readily absorbed by the crop. **ACTIVATORS** are available in two different formulations: Ammonium Thiosulphate and Potassium Thiosulphate.

### **DOSAGE AND USAGE PROCEDURES** (fertigation)

Citrus	150-200 Kg/Ha
Top Fruit	100-200 Kg/Ha
Grapes	100-150 Kg/Ha
Field and Greenhouse vegetables	50-100 Kg/Ha
Floriculture	30-50 Kg/Ha







Drums Kg. 1300 Ka. 250

Tanks Ka. 30

# **AZOLFO**® 17+46

### LIQUID FERTILIZER FOR FERTIGATION CONTAINING READILY AVAILABLE NITROGEN (IN ITS THREE FORMS) AND SULPHUR

In the majority of fertilizers Sulphur is often contained as Sulphate an effective but easily leached form, giving an intense but short lasting effect. **AZOLFO 17.46** however, contains Sulphur as S2O32- in which two Sulphur atoms are combined with three oxygen atoms. In the soil the S2O32- ion is transformed into sulphate ions (SO42-), readily available to the plant, and elemental Sulphur (S), which is absorbed more slowly and resists leaching.

The high "reducing" power of this product allows intake of those nutrients "locked up" in the soil in their oxidized form. The acidification induced during the transformation reactions allows utilization of nutrients made unavailable by calcareous soils.

Another important benefit of using **AZOLFO 17.46** is the reduction of nitrogen losses from the soil.

Used in combination with other nitro-gen fertilizers it acts as both urease enzyme and nitrification inhibitor, reducing nitrate leaching and ammonia volatilisation and allows a gradual intake of the Nitrogen present(\*).

The fungistatic effect of Sulphur makes **AZOLFO 17.46** a formulation which gives healthier, better nourished crops.

(\*) As indicated in the Final Report of the Contract no AIR-CT94-1953 in which are shown the results obtained in the research project on S2O32- carried out by various European Institutes.



#### **COMPOSITION**

Total Nitrogen (N)17%
Nitric Nitrogen (N)2,0%
Ammonium Nitrogen (N)10,5%
Ureic Nitrogen (N)4,5%
Sulphuric Trioxide (SO <sub>3</sub> )46% water soluble

### DOSAGE AND USAGE PROCEDURES (fertigation)

Citrus	150-200 Kg/Ha
Top Fruit	100-200 Kg/Ha
Grapes	100-150 Kg/Ha
Field and Greenhouse vegetables	50-100 Kg/Ha
Floriculture	30-50 Kg/Ha



IBC's Kg. 1250



Drums Kg. 250



Tanks Kg. 30



Calcium Oxide (CaO)13	3%
Magnesium Oxide (MgO) water soluble	2%



# CALCIO Liquido

## LIQUID FERTILIZER WITH READILY AVAILABLE CALCIUM

CALCIO LIQUIDO contains bivalent Calcium easily absorbed by the root system and hence suitable for fertigation. In general Calcium shortage appears as visible foliar depigmentation and curling and bending of the leaf blades, especially in younger leaves. Within the plant Calcium performs important functions such as organic acid neutralization, cell wall strengthening and regulation of Nitrogen and Iron absorption.

Calcium shortage leads to decalcification and softening of the cells walls.

### DOSAGE AND USAGE PROCEDURES

Citrus - Top Fruit	200 g/Hl (foliar)
Grapes	50-100 Kg/Ha (fertigation)
Field and Greenhouse vegetables Floriculture	200 g/Hl (foliar) 25-50 Kg/Ha (fertigation)



Kg. 1250



Kg. 250



Tanks Kg. 30





# ORGANIC FERTILIZER WITH A HIGH CONTENT OF COPPER AND MICRONUTRIENTS

CUPROAMIN FMZ is a liquid organic fertilizer obtained as a by-product of leather tanning, containing Copper, chelated Iron, Manganese and Zinc. The process extracts from the organic matter amino acids and low molecular weight peptides. Thanks to the action of the organic matter, CUPROAMIN FMZ supplied in fertigation stimulates growth using the effect of natural enzymes. The high content of Copper favours, as a collateral effect, a bactericide and fungicide action protecting the root system.

### DOSAGE AND USAGE PROCEDURES (fertigation)

Citrus - Top Fruit	40-100 Kg/Ha
Grapes	40-100 Kg/Ha
Melon and Cucumber	30-60 Kg/Ha
Artichoke - Strawberry	40-100 Kg/Ha
Field and Greenhouse vegetables	30-60 Kg/Ha
Ornamental plants and Floriculture	20-40 Kg/Ha



Organic Nitrogen (N)3%
Organic Nitrogen (N)3% water soluble
Biological Organic Carbon (C)10%
Copper (Cu) water soluble4%
Iron (Fe) EDTA water soluble0,5%
Manganese (Mn) water soluble0,5%
Zinc (Zn) water soluble0,55







Drums Kg. 250



Tanks Kg. 6-30





Chelated Iron (Fe)6% water soluble
(MAXIRON) Ortho-Ortho EDDHA min4,8%
(EXTRAIRON) Ortho-Ortho EDDHA min. 4,2%
(FERROFORTE)
Ortho-Ortho EDDHA min3,6%
Chelating agent: EDDHA
Chelate stability pH range3-11





Bags Carton case Kg. 1-2,5-5 Kg. 1

# FERRO FORTE MAXIRON EXTRAIRON

### EDDHA CHELATE IRON MICRO-GRANULES

Soluble microgranular formulation of Iron chelated with EDDHA, ethylendiamino-di (ohydroxyphenylacetic) acid. The main characteristic of this product is the presence of the stable ortho-ortho form of the EDDHA chelating agent. Iron chelated with this isomer, once distributed in the soil, is released to the plant even in the case of soils with high pH values becoming essential for the treatment of iron chlorosis, especially in calcareous soils where iron salts are precipitated and locked in the soil, unavailable to the plant.

Products applications are suggested all the times that the plants show symptoms of yellowing between the "veins" of the leaves, especially noticeable in young shoots.

Because of this capacity to improve photosynthesis, the chelated iron promotes blooming and better fruit development.

### **DOSAGE AND USAGE PROCEDURES**

Citrus - Top Fruit Olive	20-50 g/plant (preventive) 50-100 g/plant (curative)
Grapes	20-30 g/plant (preventive) 30-75 g/plant (curative)
Strawberry - Turf Vegetable crops	1-2 Kg/1000 mt



# **HUMOSTIM®**

### NATURAL LIQUID CONDITIONER WITH HUMIC ACIDS EXTRACTED FROM AMERICAN **LEONARDITE**

**HUMOSTIM** is a liquid organic plant tonic based on humic acids; highly active organic compounds extracted from natural fossils. These colloidal formulations maximise the availability of nutrients whether applied directly to the crop or already present in the soil. HUMOSTIM increases the activity of growth promoting factors. It is also beneficial as a seed treatment and on seedling root systems prior to transplantation. Applied as a foliar treatment, it enhances the translocation of nutrients throughout the plant by increasing cell wall permeability. Applied as a seed dressing, **HUMOSTIM** improves germination rates.

### **DOSAGE AND USAGE PROCEDURES**

Soil - Before sowing or transplanting	40-60 Kg/Ha
Fertigation	6-12 Kg/Ha
Transplanting: sink for several minutes in a solution containing 500 g/Hl of product	
Foliar	100-150 g/Hl



Organic Matter16% w/w (17,6% p/v)
Organic Matter dry based70% w/w (77% p/v)
Humic Organic Matter93%
Organic
Nitrogen (N)1,2% w/w (1,3% p/v)
C/N Ratio32









Kg. 250 Kg. 5-10-30



### **USAGE PROCEDURES**

Apply MICROCLEAN by using measuring pumps with EPDM rubber membranes (NBR rubber membranes to be avoided). Acid sprayers can be used and for product concentrations below 5% also fertigation pumps can be used.



# MICROCLEAN

OXIDIZING CLEANING FORMULATION FOR WATER BASINS AND IRRIGATION SYSTEMS

Thank to its strong oxidizing action, MICROCLE-AN is particularly indicated to prevent and fight mucilage development in water basins and tank. It also has a strong disinfectant action against bacteria and mildews removing bad smells in backwaters. MICROCLEAN can be employed for cleaning irrigation systems and to prevent nozzles blockage.

### PREVENTION AND MAINTENANCE

Fertigation system cleaning	60-100 cc/mc
Weed development in basins, ponds, paddies	20-50 cc/mc
High weed concentration in ponds	150-250 cc/mc
Weed development in soilless crops	20-40 cc/mc
Soil disinfection	300-400 cc/mc





Bottles Kg. 1

Tanks Kg. 6

# MICROMAG L

LIQUID FERTILIZER WITH MAGNESIUM NITRATE AND CHELATED MICRONUTRIENTS

MICROMAG L is specifically formulated to prevent and cure deficiencies of Magnesium and micronutrients. The ratios between the elements contained in MICROMAG L are designed to satisfy the nutritional needs of various high-value crops. The product can be used both as a foliar application and in fertigation systems with localized supplies in the soil. MICROMAG L is recommended for the cure of growth problems, dwarfism, yellowing and leaf-spot in crops weakened by climatic or other stresses.

### **DOSAGE AND USAGE PROCEDURES**

Citrus - Top Fruit Grapes	300 g/HI (foliar) from vegetative restart onwards 10-30 Kg/Ha (fertigation)
Field and Greenhouse vegetables	150-300 g/Hl (foliar) every 15-20 days 1-2 Kg/1000 m² (fertigation)
Pomaceae	300 g/HI (foliar) evrey 15-20 days after fruit appearance 10-20 Kg/Ha (fertigation)
Floriculture	150 g/HI (foliar) 1-3 Kg/1000 sq.m (fertigation)



Total Nitric Nitrogen (N)6%
Magnesium Oxide (MgO)9% water soluble
Boron (B) water soluble0,2%
Copper (Cu) EDTA chelated0,1% water soluble
Iron (Fe) EDTA chelated0,2% water soluble
Manganese (Mn) EDTA chelated0,1% water soluble
Molybdenum (Mo)0,02% water soluble
Zinc (Zn) EDTA chelated0,1% water soluble





Phosphate (P <sub>2</sub> O <sub>5</sub> )5% water soluble
water soluble
Potassium Oxide (K2O)25% water soluble
Sulphur Trioxide (SO <sub>3</sub> )30% water soluble



# PK-TS

## LIQUID PK FERTILIZER WITH HIGH SULPHUR CONTENT

**PK-TS** with its high content in Sulphur and Potassium is particularly suitable for achieving a good fruits ripening. **PK-TS** improves colour and texture of the fruits that become well pigmented and more resistant to transit damages keeping a good storability. Sulphur, contained as \$203, ensures a full nourishment (\$04 readily available to the plant, and \$5, elemental sulphur, absorbed more slowly and leaching resistant) and induces chemical reactions of reduction for those nutrients "locked up" in the soil in their oxidized form. The fungistatic effect of sulphur makes **PK-TS** a formulation which gives healthier, better nourished crops.

### DOSAGE AND USAGE PROCEDURES (fertigation)

Grapes	100 Kg/Ha
Vegetables	80 Kg/Ha
Arboreal crops	150 Kg/Ha



Tanks Kg. 30

# **REMOVESAL**

SOIL CONDITIONER BASED ON CALCIUM
AND MAGNESIUM COMPLEXED
WITH LINGOSULPHONATE
AND HYDROXY-CARBOXYLIC ACID

**REMOVESAL** is a formulated with Calcium and Magnesium complexed with lingosulphonate and organic acid. The use of **REMOVESAL** is fundamental in fighting soil and water salinity. By supplying complexed Calcium and Magnesium, **REMOVESAL** locks-up excess Sodium in the soil water, preventing deposits and destruction of the soil structure.

### DOSAGE AND USAGE PROCEDURES (fertigation)

Citrus - Top Fruit - Grapes	20-50 Kg/Ha
Field and Greenhouse vegetables	20-50 Kg/Ha
Floriculture	25-50 Kg/Ha
According to water characteristics:	
Slightly salty (1,5 g/l)	15-25 cc/m <sup>3</sup>
Salty (1,5-2,5 g/l)	35 cc/m <sup>3</sup>
Very salty (>2,5 g/l)	60 cc/m <sup>3</sup>



Calcium Oxide (CaO)12,8% water soluble
Magnesium Oxide (MgO)1% water soluble
Complexing agent: Lingosulphonate Acidified with Hydroxy-Carboxylic acid





Drums Kg. 250

Tanks Kg. 6-30



Total Nitric Nitrogen (N)	3%
Potassium Oxide (K2O)water soluble	6%
Magnesium Oxide (MgO)water soluble	1%
Calcium Oxide (CaO)water soluble	6%



# **SWEETON**

## LIQUID NK FERTILIZER CONTAINING CALCIUM AND MAGNESIUM

Specifically formulated to aid the movement of nutrients throughout the plant. The formulation provides for the simultaneous intake of Potassium, Calcium and Magnesium, promoting early ripening and an increase in sugar content.

Use of this product stimulates more rapid fruit coloration and more uniform vegetative growth.

### DOSAGE AND USAGE PROCEDURES (fertigation)

Citrus - Fruit trees	30-60 Kg/Ha
Grapes	50-100 Kg/Ha
Open Field vegetables	50-100 Kg/Ha
Greenhouse vegetables	30-60 Kg/Ha



Tanks Kg. 6-30

# **VIRACID**

# LIQUID NP ACIDIFYING FERTILIZER WITH pH INDICATOR

Formulation with acidifying action. The product is to be used as pH corrective for hard waters employed for foliar nutrition and for agrochemicals applications. VIRACID improves nutrients absorption and efficacy of the active ingredients that in alkaline waters are considerably reduced. Adding VIRACID to the irrigation water brings to a drop of the pH to an optimal level and, colouring the solution differently as per its pH value, allows identification of the exact suitable dosage. In fact, in the beginning the solution becomes yellow. meaning that the pH is still too high: continuing with adding the product the pH reached is about 6. at this value the solution becomes red. The acidifying action of VIRACID ensures that irrigation systems are kept free of Calcium deposits. Pipes and nozzles remain clean and blockage-free.

**VIRACID** can be applied also to provide high nutrition in Phosphorus and Nitrogen both in fertigation and in foliar application.

### DOSAGE AND USAGE PROCEDURES (fertigation)

FERTILIZATION	Foliar	150-200 g/HI
LKTILIZATION	Fertigation	2-3 Kg/Ha

ACIDIFICATION: the dosages depend on the hardness of the water employed. For waters at pH~8 the needed product quantity is indicatively 80 g/100 lt.



Total Nitrogen (N)3%
Ureic Nitrogen (N)3%
Phosphate (P <sub>2</sub> O <sub>5</sub> )20% water soluble
water soluble





Bottles Kg. 1

Tanks Kg. 6