ROSIER

ROSALIQ

LIQUID CATALOG

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OUR GLOBAL PRESENCE

OUR FOCUS IS THE DEVELOPMENT, MANUFACTURE AND MARKETING OF HIGH-QUALITY GRANULATED, WATER-SOLUBLE AND LIQUID FERTILIZERS.

Since more than 140 years, we work in long term partnerships in 120 countries all over the world. Together with our customers, we are proposing to farmers high quality fertilizers for optimal plant nutrition management. We are proud of actively contributing to sustainable and efficient food production on our planet.

SAS VAN GENT
(NL) NPK Granulars

MOUSTIER
(BE) NPK Granulars, WSF, Liquids

ROSAFERT

Rosafert is our range of compound granular fertilizers

ROSALIQ

Rosier provides liquid fertilizers with high purity and solubility

ROSATECH

Our range of liquid fertlizers especially designed for greenhouses.

ROSALEAF ROSADRIP ROSASOL

Water-soluble special fertilizers developed for various main applications:

- **ROSALEAF** are formulas specially developed for foliar fertilization with the highest foliar absorption rates and extreme foliar compatibility for application with the sprayer, especially in combination with crop protection.
- **ROSADRIP** are for use in fertigation systems, with forms for different crops and requirements (e.g. for arable crops or greenhouse crops).
- **ROSASOL** are products that can be used as foliar fertilizers and in fertigation.

ROSALIQ

Liquid water soluble fertilizers

ROSALIQ %	N	Nur	Namm	Nnit	P_2O_5	K_2O	CaO	MgO	SO_3	B	Cu	Fe	Mn	Mo	Si	Zn	Density
Nitro 275 +S+Mg	21	15,2	1,8	4	-	-	-	3	8	-	-	-	-	-	-	-	1,3
Nitro 325 +Mg	25	17,85	2,15	5	-	-	-	4	-	-	-	-	-	-	-	-	1,3
Phosphor 259 +Mg+Mn+N	3	3	-	-	19,5	-	-	4,5	2,5	-	-	-	1,8	-		-	1,33
Phosphor 315 +Ca +N	3	2,7	-	-	24,2	-	4,4	-	-	-	-	-	-	-	-	-	1,3
Phosphor 432 +Mg +N	3	3	-	-	30	-	-	7	-	-	-	-	-	-	-	-	1,44
Potassium 498 +N	3	3	-	-	-	33				-	-	-					
SulFlow600 +Mn+N	2	2	-	-	-	-	-	-	47,2	-	-	-	4,7	-	-	-	1,27
SulFlow 930 +Mg+N	12,5	9	1,1	2,4	-	-	-	2	70	-	-	-	-	-	-	-	1,33
Calcium 223							16,8										1,33
CalFlow 225 +N+TE	10	0,5	-	9,5	-	-	15	2	-	0,05	0,04	0,05	0,1	0,001	-	0,02	1,51
Magnesium 135 +N	7	-	-	7	-	-	-	10	-	-	-	-	-	-	-	-	1,35
MagFlow 338 +S	-	-	-	-	-	-	-	25	12,8	-	-	-	-	-	-	-	1,35
PK 19-21 +TE	-	-	-	-	19	21	-	-	-	0,045	0,03	0,12	0,15	0,012	-	0,12	1,47
NPK 6-6-10 +Fe	6	6	-	-	6	10	-	-	-	-	-	0,05	-	-		-	1,2
NPK 8-8-6 +TE	8	5,5	1,5	1	8	6	-	-	-	0,01	0,01	0,02	0,02	0,001	-	0,01	1,2
NPK 10-4-7 +TE	10	10	-	-	4	7	-	-	-	0,04	0,008	0,02	0,04	0,004	-	0,03	1,19
Boron 150	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	1,36
Boron 102 +Mo	-	-	-	-	-	-	-	-	-	8	-	-	-	0,8	-	-	1,27
BorFlow 60 +Mn+Mo+S	-	-	-	-	-	-	-	-	32,5	4,5			6				1,33
BorFlow 89 +Mo+S+Ca	-	-	-	-	-	-	10	-	34,2	5,85	-	-	-	0,78	-	-	1,52
Borflow 100 +Mo+S	-	-	-	-	-	-	-	-	34,5	7,4				0,74			1,35
BorFlow 100 +Mn+S	-	-	-	-	-	-	-	-	30	7,3	-	-	4,4	-	-	-	1,38
BorFlow 101 +Ca	-	-	-	-	-	-	12	-	-	7	-	-	-	-	-	-	1,44
CopperFlow 250	-	-	-	-	-	-	-	-	-	-	19,2	-	-	-	-	-	1,3
Ferrum 46 +Mn EDTA	-	-	-	-	-	-	-	-	-	-	-	3,5	2,8	-	-	-	1,3
Ferrum 100 EDTA	-	-	-	-	-	-	-	-	-	-	-	7,7	-	-	-	-	1,3
Manganese 100 +Cu+S	-	-	-	-	-	-	-	-	15	-	2,6	-	7,7	-	-	-	1,3
Manganese 150 +S	-	-	-	-	-	-	-	-	17,6	-	-	-	11	-	-	-	1,37
Manganese 235 +N	7,7	-	-	7,7	-	-	-	-	-	-	-	-	15,1	-	-	-	1,55
ManganeseFlow 44 +Mg +S+N	3,8	-	-	3,8	-	-	-	5,4	16,3	-	-	-	3,3	-	-	-	1,34
ManganeseFlow 98 +Cu+S+N	2,1	2,1	-	-	-	-	-	-	33,5	-	2,35	-	7,2	-	-	-	1,36
ManganeseFlow 262 +N	3,84	1,84	-	2	-	-	-	-	3,7	-	-	-	17,6	-	-	-	1,49
SilicaFeed 10-4-9	10	10	-	-	4	9	-	-	-	-	-	-	-	-	0,9	-	1,22
SilicaFeed +K	-	-	-	-	20,5	-	-	-	-	-	-	-	-	-	13	-	1,35
Zinc 44 +P+Mg+N	3	3	-	-	20	-	-	4,8	3,8	-	-	-	-	-	-	3,2	1,39
Zinc 115 EDTA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	1,28
Zinc 158 +S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Zinc 213 +N	6,3	-	-	6,3	-	-	-	-	-	-	-	-	-	-	-	14,7	1,45
ZincFlow 600 +N	8,7	8,7	-	-	-	-	-	-	-	-	-	-	-	-	-	35	1,71
ZincFlow 688 +N	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	40	1,72
Algafeed +Mn+Zn+S	-	-	-	-	-	-	-	-	12,8	-	-	-	8,2	-	-	4,1	1,35
Algafeed 9-4-7 +TE	9	8	-	1	4	7	-	-	-	0,03	0,005	0,02	0,03	0,003	-	0,02	1,19
Algafeed pure	-	-	-	-	-	-	-	-	-	-	-	0,4	1,8	-	-	-	1,09
Algafeed 15-17 +TE	-	-	-	-	15,1	17,1	-	0,068	0,14	0,04	0,007	0,021	0,037	0,004	-	0,025	1,32

ROSALIQ is available in 10L, 20L, 200L, 300L, 1000L.

ROSATECH

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ROSATECH %	N	Namm	Nur	Nnit	P_2O_5	K_2O	CaO	MgO	B	Cu	Fe	Mn	Mo	Zn
NitroMag 10	7	-		7	-	-	-	10						
Calcium 16,8	-	-		-	-	-	16,8	-						
Nitram 13	13,4	6,7		6,7	-	-	-	-						
NitrAm 18	18	9		9	-	-	-	-						
PhosphAcid 43	-	-		-	43	-	-	-						
NitrAcid 8,5	8,5	-		8,5	-	-	-	-						
NitroCalcium 8,7	8,7	-		8,7	-	-	17,4	-						
NitrAcid 5,6	5,6	-		5,6	-	-	-	-						
NPK 4-3-4 +Mg+TE	4,5	1,5		3	3,25-	4,5	-	1-	0,01	0,002	0,02	0,01	0,001	0,005
NPK 10-2-5 +Mg+TE	10	4,1		5,9	2	5	-	1	0,01	0,002	0,02	0,01	0,001	0,005
NPK 17-2-5 +TE	17	-	16	1	2	5	-	-	0,01	0,01		0,01		

ROSATECH est disponible en 10L, 200L, 1000L,Vrac.

ROSALIQ

NITRO 275 +Mg+S

Benefits

- Improves yield and protein content through the synergistic effect of high Nitrogen, Sulphur and Magnesium content.
- Supports good crop development during the vegetative growth stages due to high concentration of nitrogen in combination with Sulphur and Magnesium.
- Specially effective during extreme weather and soil conditions (low or high pH soils, sandy or light soils, low organic matter, drought conditions and high rainfall or heavy irrigation).
- Improved Nitrogen use efficiency due to synergistic effect with Magnesium in the formation of chlorophyl

Characteristics and composition

- **Colour:** No colour*
- **Type:** Clear liquid
- **pH at 20°C:** 4
- **Safety Data Sheet:** FSL-081
- **Density:** 1.3

*Colour differences may occur and do not affect the quality of the fertilizer.

	N	N amm	N nit	N ur	MgO	SO_3
%	21	1.8	4	15.2	3	8
g/L	275	24	52	199	39	105

Recommendation

Ideal source of magnesium and sulphur to support the efficiency of nitrogen fertilization, and to support vegetative growth stages.

➜ ARABLE CROPS: **Cereals (except malting barley):** 15 to 25 L/ha between stem elongation and flag leaf stage (support in case of dry period), 25-50 L/ha until the end of flowering (to improve protein content). To be mixed with 150 L water/ha. **Maize:** 25 l/ha at latest as possible timing to spray. **Potato:** 25 L/ha 6 weeks after emergence (75% seedling), 25 L/ha 8 days later. **Cotton:** 30-40 L/ha to supply nitrogen during periods of peak demand or nitrogen shortages. Water rate 30-80 L/ha. **Oilseed Rape:** 80-100 L/ha during rosette growth stage. **Sugar cane:** 25-50 L/ha from stem elongation to flowering.

➜ PERENNIALS AND FRUIT CROPS: **Fruit trees:** 20-30 L/ha after harvest. **Vinegrapes:** 20-30 L/ha during fruit maturation. **Banana:** 30 L/ha every 2 months. **Pineapple:** 28-45 L/ha every 2 months. **Coffee:** 3 x 2 L/tree at 2-month intervals (for N-deficiency). **Citrus:** 2 x 15 L/ha in 400 L/water in pre-bloom and post bloom. **Apple:** 2 L in 100 L/ha with plant protection products before petal fall.

ROSALIQ

NITRO 325 +Mg

Benefits

- Improves the Nitrogen uptake, increasing yield and protein content through the synergistic effect of high nitrogen and magnesium.
- Supplies nitrogen surplus rates which have been affected due to extreme weather and soil conditions (low or high pH soils, sandy or light soils, low organic matter, drought, high rainfall or heavy irrigation).
- Helps to correct nitrogen deficiencies due to rapid effect and high concentration of nitrogen.

Characteristics and composition

- **Colour:** Green*
- **Type:** Clear liquid
- **pH at 20°C:** 4.5-6
- **Safety Data Sheet:** FSL-059
- **Density:** 1.3

*Colour differences may occur and do not affect the quality of the fertilizer.

	N	N amm	N nit	N ur	MgO
%	25	2.15	5	17.85	4
g/L	325	28	65	232	52

Recommendation

Highly available Nitrogen source for use in high pH, organic, sandy and eroded soils or during extreme weather conditions. Apply when enough leaf surface is available.

➜ ARABLE CROPS: **Cereals (except malting barley,):** Application rate depends on the expected yield and climate conditions:
1) 2 applications strategy: 15-25 L/ha between stem elongation and flag leaf stage (support in case of dry period and increasing the yield), and 15-25 L/ha end of flowering (to improve protein content). 2) 1 application strategy: 15-40 L/ha at flag leaf stage. **Maize:** 15-25 L/ha as late as possible to spray. **Potato:** 25 L/ha 6 weeks after emergence (75% seedling), 25 L/ha 8 days later or 5 L/ha in combination with every fungicide application. **Cotton:** Apply 30-40 L/ha to supply rapidly utilised nitrogen during peak nitrogen demand or periods of nitrogen shortages with 30-80 L of water/ha. **Oilseed rape:** 15-25 L/ha in the autumn; in case of deficiency 15-25 L/ha at the spring. **Sugar cane:** 25-50 L/ha beginning at stem elongation to flowering.

➜ PERENNIALS AND FRUIT CROPS: **Fruit trees:** 20-30 L/ha after harvest. **Vinegrapes:** 20-30 L/ha during fruit maturation. **Banana:** 30 L/ha all 2 months. **Pineapple:** 28-45 L/ha all 2 months. **Coffee:** 3 x 2 L/tree with 2 month intervals (for N-deficiency). **Citrus:** 2 x 15 L/ha in 400 L/water at pre-flowering and repeat after post flowering stage. **Apple:** 3 x 2 L in 100 L/ha with plant protection products before petals fall.

➜ VEGETABLES: **Leaf vegetables and salads:** 1-2 x 10-15 L/ha during intense vegetation once enough surface and every 10-15 days.

ROSALIQ

PHOSPHOR 259 +Mg+Mn+S

Benefits

- Starter fertilizer which promotes vital growth due to the combination of the most essential nutrients in assimilable forms.
- Improves crops start up performance related with adverse weather and soil conditions as a result of the balanced and synergistic effect of the nutrient mix.
- Promotes root elongation to young plants due to high content of assimilable Phosphorus form.
- Improves flowering and fruit formation due to high concentration of Phosphorous.
- The absorption of Phosphorus is improved due to the synergistic effect between urea Nitrogen and Phosphorus.
- Improves the Nitrogen efficiency and photosynthesis by the Magnesium (part of chlorophyll) content.
- Reduces the risk of nitrogen deficiencies due to the activation of nitrate reductase by Manganese in the formulation.

Characteristics and composition

- **Colour:** Green*
- **Type:** Clear liquid
- **pH at 20°C:** 1.7-1.9
- **Safety Data Sheet:** FSL-031
- **Density:** 1.33

	N	N ur	P_2O_5	MgO	Mn
%	3	3	19.5	3	1.8
g/L	40	40	259	39	24

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

Starter fertilizer for all crops for leaf and drip irrigation applications, for the preventive and curative control of deficiency or imbalance in the assimilation of Phosphorus.

➜ **ARABLE CROPS: Winter cereals:** 5 L/ha from beginning of vegetation until tillering. **Summer cereals:** 5 L/ha at tillering. **Pea, bean, soybean:** 5 L/ha in 8 leaf stage. **Alfalfa:** 3-5 L/ha when enough surface and 3-5 L/ha one week after every cutting. **Oilseed rape:** 1-2 x 5 L/ha in spring at beginning of vegetation until pre-flowering. **Turnip:** 3-5 L/ha at 4-6 leaf stage. **Sugar beet:** 1-2 x 5 L/ha at 6-leaf stage until row closure. **Potato (consumption and industry):** 2 x 5 L/ha at stolon initiation and all again 15 days later. **Potato (seed and firm flesh):** 4 x 5 L/ha from stolon initiation and all 15 days. **Sweet potato:** 1-3x 5 L/ha after total emergence and during tuber bulking and all 10-14 days. **Maize, sorghum, sunflower:** 5 L/ha at 4-8 leaf stage. **Flax:** 5 L/ha at 4 cm and at 8-10 cm. **Rice:** 5 L/ha one month after sowing and again pre-flowering. **Cotton:** 1-2 x 5 L/ha from beginning of flowering and 15 days later. **Tobacco:** 1-2 x 3-5 L/ha 2 weeks after transplanting and 10-14 days later. **Peanuts:** 1-2 x 5 L/ha at 4-6 leaf stage and 10-14 days later.

➜ **PERENNIALS CROPS: Grapes:** 2-4 x 3-8 L/ha at fruit set and every 10-14 days. **Soft fruits:** 2-3 x 3-8 L/ha at petals fall, fruit set and early fruit size. **Stone fruit**: 2-5 x 3-6 L/ha at fruit setting until 2 weeks before harvest at 10-14 days interval. **Citrus:** 1-3 x 8-10 L/ha at fruit setting and every 10-14 days. **Pome fruits:** 3-8 x 4-8 L/ha starting at petal fall until 2 weeks before harvesting (10-15 days interval). **Almond:** 2-5 x 4-8 L/ha from petal fall and every 10-14 days. **Strawberries:** 3 x 4-8 L/ha at pre-flowering and every 7-10 days. **Cranberries:** 5 L/ha at fruit set. **Olive:** 4-8 L/ha at pre-flowering and 3-5 L/ha 10-14 days after flowering. **Turf and golf greens:** 3-5 x 6-8 L/ha during vegetation.

➜ **VEGETABLES: Cabbage, broccoli, cauliflower, brussels sprouts:** 2-3 x 8-10 L/ha beginning of stem extension/head development and every 10-14 days. **Tomato (open-field):** 2-4 x 5 L/ha at pre-flowering and every 10-14 days. **Onion, Garlic:** 1-2 x 5 L/ha at 15 cm and every 10-14 days; 1-2 x 5 L/ha during bulb filling (10-14 days interval). **Asparagus:** 1-3 x 8 L/ha from the middle of the vegetation. **Medicinal and spice plants:** 1-3 x 6 L/ha once enough surface. **Peppers:** 1-4 x 5 L/ha at pre-flowering and every 10-14 days. **Carrot:** 1-2 x 3-5 L/ha at 15 cm. **Lettuce:** 2-3 x 5 L/ha beginning 10-14 days after transplanting and every 7-10 days. **Spinach:** 1-3 x 3-5 L/ha from 4-6 leaf stage and every 10-14 days. **Zucchini, cucumber:** 2-3 x 3-5 L/ha at fruit setting and every 7-10 days. **Melons:** 1-3 x 3-5 L/ha at pre-flowering and every 10-14 days. **General:** 1-3 x 5 L/ha once enough leaf surface available.

ROSALIQ

PHOSPHOR 315 +Ca+N

Benefits

- Starter fertilizer which promotes vital growth due to the combination of the most essential structural nutrients in assimilable forms.
- Improves crops' start up performance related to bad weather and soil conditions thanks to the balanced and synergistic effect of the nutrients.
- Promotes root elongation of young plants due to high content of assimilable Phosphorus form.
- Improves vital growth, seed and fruit yielding due to calcium and Phosphorus content.
- The absorption of Phosphorus is improved due to the synergistic effect between urea Nitrogen and Phosphorus.

Characteristics and composition

- **Colour:** No colour*
- **Type:** Clear liquid
- **pH at 20°C:** 0.8-1.2
- **Safety Data Sheet:** FSL-006
- **Density:** 1.3

	N	N ur	N am	P_2O_5	CaO
%	3	2.7	0.3	24.2	4.4
g/L	39	35	4	315	57

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

For the preventive and curative control due to deficiency or assimilation imbalance of phosphorus and calcium.

➜ ARABLE CROPS: **Pea, bean, soybean:** 5 L/ha at 8 leaf stage. **Alfalfa:** 3-5 L/ha once enough surface and 3-5 L/ha one week after every cutting. **Rapeseed:** 1-2 x 5 L/ha in spring at beginning of vegetation until pre-flowering. **Turnip:** 3-5 L/ha at 4-6 leaf stage. **Sugar beet:** 1-2 x 5 L/ha at 6-8 leaf stage until row closure. **Winter Cereals:** 5 L/ha at beginning of vegetation until tillering. **Summer Cereals:** 5 L/ha at tillering. **Potato (consumption and industry):** 5 L/ha at stolon initiation and again 15 days later. **Potato (seed and firm flesh):** 4 x 5 L/ha from stolon initiation and every 15 days. **Sweet Potato:** 1-3 x 5 L/ha after total emergence and during tuber bulking every 10-14 days. **Maize, sorghum, sunflower:** 5 L/ha at 4-8 leaf stage. **Flax:** 5 L/ha at 4 cm and again 5 L/ha at 8-10 cm. **Rice:** 5 L/ha one month after sowing and at pre-flowering. **Cotton:** 1-2 x 5 L/ha at beginning of flowering and 14 days later. **Tobacco:** 1-2 x 3-5 L/ha 2 weeks after transplanting and 10-14 days later. **Peanuts:** 1-2 x 5 L/ha at 4-6 leaf stage and 10-14 days later.

➜ PERENNIALS CROPS: **Grapes:** 2-4 x 3-6 L/ha at fruit setting and every 10-14 days. **Berries:** 2-3 x 3-6 L/ha after petals fall, fruit set and berry sizing. **Stone fruit:** 2-5 x 3-6 L/ha at fruit setting and all 7-14 days until to 2 weeks before harvesting. **Citrus:** 1-3 x 5 L/ha at fruit setting and at 10-14 days intervall. **Pome fruit:** 3-8 x 4-6 L/ha at petals fall and all 7-14 days until to 2 weeks before harvesting. **Almond:** 2-5 x 4-6 L/ha at petals fall and all 10-14 days. **Strawberries:** 3 x 4-6 L/ha at pre-flowering and all 7-10 days. **Cranberries:** 5 L/ha at fruit setting. **Olive:** 4-6 L/ha at pre-flowering and 3-5 L/ha at post-flowering. **Turf and golf greens:** 3-5 x 6-8 L/ha during vegetation period.

➜ VEGETABLES: **General:** 1-3 x 5 L/ha once enough leaf surface available. **Cabbage, broccoli, cauliflower, brussels sprouts:** 2-3 x 6-8 L/ha from stem extension/head development and all 7-14 days. **Tomato (field grown):** 2-4 x 5 L/ha at 15 cm and all 10-14 days. **Onion, garlic:** 1-2 x 5 L/ha at 15 cm and 1-2 x 5 L/ha during bulb filling. **Asparagus:** 1-3 x 6 L/ha at middle of vegetation period. **Medicinal plants and spice plants:** 1-3 x 5 L/ha once enough leaf surface available. **Peppers:** 1-4 x 5 L/ha at pre-flowering and all 10-14 days. **Carrot:** 1-2 x 3-5 L/ha at 15 cm. **Lettuce:** 2-3 x 5 L/ha 10-14 days after transplanting and at 7-10 day intervall. **Spinach:** 1-3 x 3-5 L/ha at 4-6 leaf stage and every 10-14 days. **Zucchini, cucumber:** 2-3 x 3-5 L/ha at fruit setting and every 7 days. **Melons:** 1-3 x 3-5 L/ha at pre-flowering and every 10-14 days.

➜ DRIP IRRIGATION: 0.5-2.0 % in irrigation water (5-20 L/ha 1000 L water), volume per ha and year depends on the need.

ROSALIQ

PHOSPHOR 432 +Mg+N

Benefits

- Starter fertilizer which promotes vital growth due to the combination of the most essential nutrients in assimilable forms.
- Improves crops start up performance related to adverse weather and soil conditions due to the balanced and synergistic effect of the nutrients.
- Promotes root elongation of young plants thanks to the high content of assimilable Phosphorus form.
- Improves reproductive growth due to high available Phosphorus and nutrient mix with Magnesium and nitrogen.
- The absorption of Phosphorus is improved due to the synergistic effect between urea Nitrogen and Phosphorus.

Characteristics and composition

- **Colour:** No colour*
- **Type:** Clear liquid
- **pH at 20°C:** 1.6
- **Safety Data Sheet:** FSL-030
- **Density:** 1.44

	N	N ur	P_2O_5	MgO
%	3	3	30	7
g/L	43	43	432	101

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

ARABLE CROPS: **Winter cereals:** 5 L/ha at beginning of vegetation until tillering. **Summer cereals:** 5 L/ha at tillering. **Pea, bean, soybean:** 5 L/ha at 8 leaf stage. **Alfalfa:** 3-5 L/ha once enough surface and 3-5 L/ha one week after every cutting. **Oilseed rape:** 1-2 x 5 L/ha in spring at beginning of vegetation until pre-flowering. **Turnip:** 3-5 L/ha at 4-6 leaf stage. **Sugar beet:** 1-2 x 5 L/ha at 6 leaf stage until row closure. **Potato (consumption and industry):** 5 L/ha beginning at stolon initiation and 15 days later. **Potato (seed and firm flesh):** 4 x 5 L/ha beginning at stolon initiation and at 15 day intervals. **Sweet potato:** 1-3 x 5 L/ha after total emergence, during tuber bulking and every 10-14 days. **Maize, sorghum, sunflower:** 5 L/ha at 4-8-leaf stage. **Flax:** 5 L/ha at 4 cm and 5 L/ha at 8-10 cm. **Rice:** 2 x 5 L/ha one month after sowing and at pre-flowering. **Cotton:** 1-2 x 5 L/ha from beginning of flowering and 14 days later. **Tobacco:** 1-2 x 3-5 L/ha 2 weeks after transplanting and 10-14 days later. **Peanuts:** 1-2 x 5 L/ha from 4-6 leaf stage and 10-14 days later.

PERENNIALS CROPS: **Grapes:** 1-3 x 3-8 L/ha at fruit set and all 10-14 days. **Berries:** 2-3 x 3-8 L/ha after petals fall, fruit set and berry size. **Stone fruit:** 2-5 x 3-6 L/ha at fruit setting and all 7-14 days till 2 weeks before harvest. **Citrus:** 1-3 x 8-10 L/ha at fruit setting and all 10-14 days. **Pome fruit:** 3-8 x 4-8 L/ha at petals fall and all 7-14 days till 2 weeks before harvesting. **Almond:** 2-5 x 4-8 L/ha at petals fall and all 10-14 days. **Strawberries:** 3 x 4-8 L/ha at pre-flowering and all 7-10 days. **Cranberries:** 5 L/ha at fruit setting. **Olive:** 4-8 L/ha at pre-flowering and 3-5 L/ha 1-2 weeks at post-flowering. **Turf and golf greens:** 3-5 x 6-8 L/ha during vegetation growth.

VEGETABLES: **General:** 1-3 x 5 L/ha once enough leaf surface. **Cabbage, broccoli, cauliflower, brussels sprouts:** 2-3 x 8-10 L/ha from stem extension/ head development and all 7-14 days. **Tomato (open field):** 2-4 x 5 L/ha at pre-flowering and all 10-14 days. **Onion, garlic:** 5 L/ha at 15cm; 1-2 x 5 L/ha during bulb filling (10-14 days interval). **Asparagus:** 1-3 x 8 L/ha during middle of the vegetation period and all 7-14 days. **Medicinal and spice plants:** 1-3 x 6 L/ha once enough leaf surface. **Peppers:** 1-4 x 5 L/ha at pre-flowering and all 10-14 days. **Carrot:** 1-2 x 3-5 L/ha at 15 cm and 14 days later. **Lettuce:** 2-3 x 5 L/ha 2 weeks after transplanting and all 7-10 days. **Spinach:** 1-3 x 3-5 L/ha at 4-6 leaf stage and all 10-14 days. **Zucchini, cucumber:** 2-3 x 3-5 L/ha at fruit setting and all 7-10 days. **Melons:** 1-3 x 3-5 L/ha at pre-flowering and all 10-14 days.

DRIP IRRIGATION: 0.5-1.5 % in irrigation water (5-15 L/ha 1000 L water), volume per ha and year depends on the need.

ROSALIQ

POTASSIUM 498 +N

Benefits

- ➜ Enhances the crop' ability to resist to extreme weather conditions thanks to the highly available Potassium carbonate.
- ➜ Provides easy assimilable nitrogen for quick N-deficiency relief.
- ➜ Improves crops resistance to drought due to high available potassium content.
- ➜ Promotes plants growth by improving overall health, root strength and disease resistance.
- ➜ Supports vitality and water balance.
- ➜ Improves the colour, texture, and taste of fruits due to high potassium content.
- ➜ Neutralizes soil acidity, and allows crops to grow in suitable soil pH environments because of high product pH.

Characteristics and composition

- **Colour:** No colour*
- **Type:** Clear liquid
- **pH at 20°C:** 13
- **Safety Data Sheet:** FSL-068
- **Density:** 1.51

*Colour differences may occur and do not affect the quality of the fertilizer.

	N	N ur	K_2O
%	3	3	33
g/L	45	45	498

Recommendation

Supports the formation of sugars and starches affecting harvesting and post harvesting.

➜ **ARABLE CROPS:** **Pea, bean, soybean:** 5 L/ha before flowering. **Alfalfa:** 5 L/ha 2-3 weeks before each cutting. **Oilseed rape:** 1-2 x 5-10 L/ha from 6-8 leaf stage. **Sugar beet:** 1-2 x 5-8 L/ha from 8 leaf stage until row closure. **Cereals:** 5 L/ha starting at tillering, and again 14-21 days later. **Potato:** 2-4 x 5-10 L/ha before flowering. **Maize:** 5 L/ha at 6-8 leaf stage. **Tobacco:** 2-3 x 5L/ha starting from 4-6 leaf stage and repeating every 10 days.

➜ **PERENNIALS CROPS:** **Grapes:** 4 L/ha foliar applications at fruit setting, grape closure and beginning of ripening. **Citrus:** 4 L/ha foliar applications at petals fall, fruit setting and fruit growth. **Stone fruit:** 4 L/ha foliar applications at fruit setting, fall of calyces and young fruit. **Hops:** 2-5 x 5-10 L/ha from cutting/fixing until pre-flowering. **Pomme fruits:** 2-4 x 5 L/ha beginning after fruit drop and harvesting. **Strawberries:** 2-3 x 5 L/ha from fruit set to harvesting. **Blackcurrant:** 5 L/ha at pre-flowering stage. **Raspberry:** 5 L/ha at green bud stage. **Turf and golf greens:** 10 L/ha at begin of vegetation in spring. If necessary repeat after 2 weeks.

➜ **VEGETABLES:** **General:** 2-4 x 5 L/ha if enough leaf mass is developed. **Cabbage, Broccoli, Cauliflower, Brussels sprouts:** 1-2 x 5 L/ha at 4-6 leaf stage and repeat 7-14 days later. **Bulb vegetables:** 5 L/ha (leaf application) when sufficient leaf area is developed, or 35 L/ha (drip fertigation) 1 month before harvest. **Cucumber, melon, watermelon:** 20 L/ha by drip-fertigation 15 days before each harvest. **Medicinal and spice plants:** 2 x 5 L/ha when enough leaf mass is developed. **Carrot:** 1-2 x 5 L/ha when crop is 15 cm tall and 2 weeks later. **Lettuce (field grown):** 1-3 x 5 L/ha from beginning of head forming and all the 10 days; final application one month before the harvest. **Leek:** 1-3 x 5 L/ha two weeks after transplantation and every 15 days. **Beetroot:** 1-3 x 3-5 L/ha during bulb filling and every 15 days. **Spinach:** 1-2 x 5 L/ha when there is enough leaf area and 15 days later.

➜ **DRIP IRRIGATION:** 1.5-5.0 % in irrigation water (15-50 L/ha 1000 L water), volume per ha and year depends on the need. Product can be used to regulate acid solutions.

ROSALIQ

SULFLOW 600 +Mn+N

Benefits

- Supports plant growth due to Sulphur's activity in the metabolism of nitrogen.
- Improves photosynthesis as Manganese is a major enzymatic constituent required for the formation of the chlorophyll molecule.
- Supports protein formation, and has influence on the content of sugars and fats in plants.
- Affects positively the quality of oil content in oil crops, especially by the pods, as a result of the parallel uptake and enzyme activation of Sulphur and Nitrogen.
- Gives significant taste and smell due to the presence of Sulphur in volatile compounds of oils (garlic, onion, leek, mustard).

Characteristics and composition

- **Colour:** White*
- **Type:** Flow
- **pH at 20°C:** 4-6
- **Safety Data Sheet:** FSL-033
- **Density:** 1.27

	N	N ur	SO3	Mn
%	2	2	47.2	4.7
g/L	25	25	600	60

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

For curative control of deficiency or imbalance of sulphur and manganese.

➜ **ARABLE CROPS: Pea, bean, soybean:** 5 L/ha at 6-8 cm stage. **Oilseed rape:** 1-2 x 3-5 L/ha at beginning of stem elongation until flowering. **Sugar beet:** 1-3 x 5 L/ha from 6 leaf stage and at 10-15 days intervals. **Cereals:** 1-3 x 3-5 L/ha between 3 leaf stage and end of stem elongation. **Sunflower:** 5 L/ha from 1-4 leaf stages. **Potato:** 2-5 x 5 L/ha once enough leaf surface until pre-flowering stage.

➜ **PERENNIALS CROPS: Pome fruits:** 1-3 x 3-4 L/ha pre-flowering stage and after flowering stage until second fruit drop. **Grapes:** 3-5 x 5 L/ha at 3 leaf stage until flowering and at end of flowering until fruit set. **Golf greens:** 3-4 x 10 L/ha every 4 weeks during growth season. **Hops:** 3-4 x 5 L/ha at 4 leaves pairs and every 10-15 days.

➜ **VEGETABLES: Cabbages (brassicas):** 2-5 x 5 L/ha at 4 leaf stage until begin of head formation. **Bulb vegetables:** 2–5 x 5 L/ha beginning at 4 leaves until beginning of bulb formation. **Chicory, endive:** 5 L/ha at 6-8 leaf stage. **Root vegetables:** 5 L/ha at 6-8 leaves and 10-14 days later if needed.

SULFLOW 930 +Mg+N

Benefits

- Supports plant growth due to the synergistic effect of sulphur on the Nitrogen metabolism.
- Improves photosynthesis as Sulphur and Magnesium are important enzymatic constituents required for the formation of the chlorophyll system.
- Increases the content of sugars and fats in the plants, because of the support of Magnesium on protein formation and enzymatic reactions in the plants.
- Affects positively the quality and oil content to oil crops, as a result of the parallel uptake of magnesium and sulphur which activate several related enzymes.
- Improves taste and smell of plant produce due Sulphur´s contribution in the formation of volatile compound and oils (garlic, onion, leek, mustard).

Characteristics and composition

- **Colour:** Green*
- **Type:** Flow
- **pH at 20°C:** 5-7
- **Safety Data Sheet:** FSL-012
- **Density:** 1.33

	N	N nit	N am	N ur	MgO	SO_3
%	12.5	2.4	1.1	9	2	70
g/L	166	32	14	120	27	930

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

For curative control of deficiency or imbalance of sulphur with applications from early stages of plant vegetation to the bloom stage.

ARABLE CROPS: **Pea, bean, soybean:** 5 L/ha at 6-8 cm height. **Oilseed rape:** 1-2 x 3-5 L/ha at beginning of stem elongation until flowering. **Sugar beet:** 1-3 x 5 L/ha starting 6 leaf stage. **Cereals:** 3-5 L/ha at tillering and 3-5 L/ha at end of flowering. **Sunflower:** 5 L/ha from 1-4 leaf stage and 5 L/ha during growth stage until before flowering. **Potato:** 2–5 x 5 L/ha when once enough surface available until before flowering.

PERENNIALS CROPS: **Apple, pear:** 1-3 x 3-4 L/ha from pre-flowering stage and after flowering stage until second fruit drop. **Grapes:** 3-5 x 4-5 L/ha from 3 leaf stage until flowering and at end of flowering until fruit set. **Golf greens:** 3-4 x 10 L/ha during the growth season. **Hops:** 3-4 x 5 L/ha at 4 leaf pairs and every 15 days.

VEGETABLES: **Cabbages (brassicas):** 2-5 x 5 L/ha at 4 leaf stage until begin of head formation. **Bulb vegetables:** 2–5 x 5 L/ha beginning at 4 leaf stage until beginning of bulb formation. **Chicory, endive:** 5 L/ha at 6-8 leaf stage. **Root vegetables:** 5 L/ha at 6-8 leaf stage and 10-14 days later if needed.

ROSALIQ

CALCIUM 223

Benefits

- ➜ Improves fruit filling and post-harvest storage of fruits and vegetables due to high content of calcium.
- ➜ Improves fruits quality by preventing incidence of corky spots, bitter pit for example in pome fruits.
- ➜ Corrects physiological problems in plants caused by calcium deficiencies.
- ➜ High concentration of Calcium and fast uptake due to high quality and consistent true liquid formulation (no sedimentation).

Characteristics and composition

- **Colour:** No colour*
- **Type:** Clear liquid
- **pH at 20°C:** 8.3
- **Safety Data Sheet:** FSL-008
- **Density:** 1.33

	CaO
%	16.8
g/L	223

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

Corrects physiological problems in plants caused by calcium deficiencies.

➜ **PERENNIALS AND FRUIT TREES:** 5 L/ha after first petals fall (and 3 applications all 8 or 15 days after). **Vineyard:** 3 x 4 L/ha between fruit setting and maturation. **Pome fruits:** 3-4 x 6 L/ha from fruit size 2.5 cm, repeat every 10 days, 2-4 x 9 L/ha, from June every 10-15 days until onset of harvest, 1.2 L/100 L for post-harvest fruit treatment. **Stone fruits:** 6 L/ha during fruit setting, 4 and 2 weeks before harvest. **Kiwi:** 6 L/ha at start of fruit filling, and 3 applications from 60 days before harvest every 15 days. **Citrus:** 3 x 6 L/ha from onset of fruit filling every 10 days. **Walnut:** 4 L/ha when pistillate flowers appear. **Avocado, olives:** 4 L/ha at start of flowering.

➜ **VEGETABLES CROPS:** 5 L/ha between growth recovery and vegetation closing, repeat after 15 days. **Cucumber, melons:** 3 L/ha after fruit setting and 8-15 days later. **Tomato, chilli, bell pepper:** 3 L/ha from start of first fruiting bunch, repeat 4 x every 15 days. **Lettuce, cabbage:** 3 L/ha, 30 and 15 days before harvest. **Celery:** 6 x 3 L/ha from 25% crop coverage every 15 days. **Raspberry, blueberry:** 3-4 x 6 L/ha from middle of fruit filling every 10 days. **Strawberry:** 3 x 3 L/ha from middle of fruit filling to harvest.

➜ **ARABLE CROPS:** **Potatoes:** 4 x 5 L/ha from tuber initiation, repeat up to 3 applications every 8-15 days. **Pea, soybean, bean:** 5 L/ha at 8-10 cm stage.

ROSALIQ

CALFLOW 225 +N+TE

Benefits

- ➜ Provides structural support to cell walls such as young leaves and fruits, due to the available amount of calcium in nitrate form.
- ➜ Assists plants recovery from physical or biochemical stress as a result of nutrients' direct availability.
- ➜ Reduces the risks of nutrient deficiencies during fruit forming and filling as a result of the nutrient mix calcium, nitric nitrogen and trace elements.
- ➜ Assists in fruit maturation to prevent calcium deficiency.
- ➜ Improves fruit skin quality, abiotic stress or physiological plant disorders due to the complex formulation of Calcium, Nitrogen and Trace Elements.

Characteristics and composition

- **Colour:** Green*
- **Type:** Flow
- **pH at 20°C:** 4.6
- **Safety Data Sheet:** FSL-010
- **Density:** 1.51

	N	N ur	N nit	CaO	MgO	B	Cu	Fe	Mn	Mo	Zn
%	10	0.5	9.5	15	2	0.05	0.04	0.05	0.1	0.001	0.02
g/L	150	7.5	142.5	225	30	0.75	0.6	0.75	1.5	0.015	0.3

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

Ideal during fruit setting due to calcium nitrate quick action.

➜ **PERENNIALS AND FRUIT TREES:** 4 x 5 L/ha after first petals fall, after then every 8-15 days. **Citrus:** 2-3 x 6 L/ha from curdling every 10 days. **Avocado, olive:** 4 L/ha, at start of flowering. **Pome fruits:** 3-4 x 6 L/ha when fruit has 2.5 cm, repeat every 10 days; 4 x 9 L/ha from early summer to begin harvest every 10-15 days. **Stone fruits:** 3 x 6 L/ha at fruit maturing, 4 and 2 weeks before harvest. **Vine and grapes:** 1-2 x 4-5 L/ha pre-flowering, 3 x 6 L/ha when berry has 4-5 mm, repeat every 5-7 days in mixture Gibberellic Acid. **Kiwi:** 3-4 x 6 L/ha at start of fruit maturation, and from 60 days before harvest every 15 days.

➜ **ARABLE CROPS:** **Potato:** 4 x 5 L/ha from tuber initiation every 8-15 days. **Pea, soybean, bean:** 5 L/ha at 8 to 10 cm stage.

➜ **VEGETABLES:** 2 x 5 L/ha between growth recovery and vegetation closing, repeat every 15 days. **Tomato, bell pepper/chilli, cucumber, cucurbits:** 4 x 1 L/ha after fruit setting, repeat every 8-15 days. **Beet:** 5-6 L/ha every 15 days after 25% crop cover. **Leafy vegetables:** 2 x 3 L/ha, 30 and 15 days before harvest. **Celery, beet:** 5-6 L/ha every 15 days after 25% crop cover. **Blueberry, raspberry:** 3-4 x 6 L/ha, mid-size fruits every 7-10 days. **Strawberry:** 2-3 x 3 L/ha, from mid fruit growth until harvest.

➜ **ORCHARDS:** 1 to 2 l/ha, at flower coaching and setting. **Seedlings:** 2-3 L/ha, 10 days after emergence or after leaf unfolding, then every 5-30 days. **Roses:** 0,8-1,7 L/ha Pre-flowering. **Carnation:** 2 L/ha, pre-flowering at 40, 60 and 80 days after germination. **Marigold:** 1 L/ha at blossom and at opening of flowers.

➜ **DRIP IRRIGATION OR TANK MIX:** 2-5 % in irrigation water (20-50 L/ 1000 L water - Tank B)

ROSALIQ

MAGNESIUM 135 +N

Benefits

- Improves the photosynthesis activity, due to the importance of magnesium in the building up of the chlorophyll cells.
- Its use quickly corrects Mg and N deficiencies in the crop, due to the perfect nutrient mix of Magnesium and Nitrate.
- It improves the source to sink transport of starch and sugars in the crop and improving harvested products quality, thanks to the activation of several enzymatic processes in the crop.
- Improves the balance of magnesium in conditions of excessive concentrations of ammonium, calcium and potassium.
- Its application allows a better general nutrient uptake, attributable to the high synergistic effect of Magnesium and Nitrate.

Characteristics and composition

- **Colour:** No colour*
- **Type:** Clear liquid
- **pH at 20°C:** 1-5
- **Safety Data Sheet:** FSL-001
- **Density:** 1.35

	N	N nit	MgO
%	7	7	10
gL	95	95	135

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

For the preventive and curative control of magnesium deficiency or imbalance. Ideal for all crops especially during the vegetative growth stage.

PERENNIALS AND FRUIT TREES: 4 x 4 L/ha at red spot stage to fruit enlargement. **Grapes:** 2 x 10 L/ha at fruit set and from cluster closing to beginning of ripening. **Vine grapes:** 3 x 8 L/ha 15 days before cluster closing, during cluster closing, and 15 days after cluster closing. **Citrus, avocado:** 2 x 10 L/ha during main growth stages in fall and spring. **Walnut:** 2 x 6 L/ha during vegetative growth and at fruit filling. **Kiwi:** 4 x 8 L/ha after petal fall, 30, 40 and 50 days after full flower. **Pome fruits:** when low on leaf Mg, 4 x 10 L/ha every 15 days until end of summer. **Stone fruits:** 3 x 10 L/ha after second fruit fall every 15 days.

ARABLE CROPS: **Potato:** 2 x 8 L/ha one week after full emergence and 15 days later. **Sugar beet:** 4 L/ha at 6-8 leaf stage. **Cereals:** 4 L/ha between start and end of tillering.

VEGETABLES: 3 x 6 L/ha from 4-6 leaf stage in 15 day intervals. **Chicory, endive:** 4 L/ha at 6-8 leaf stage. **Tomato:** 2 x 3 L/ha during vegetative growth. **Berries:** 3 x 4 L/ha before bud burst, and during fruit development. **Bean, pea:** 3 x 6 L/ha at 6 leaf stage, at 15 days interval. **Lettuce, carrot:** 3 x 4 L/ha 14 days after transplanting or emergence, repeat every 7-10 days.

GENERAL RATE AND FOR DRIP IRRIGATION: 8 L/ha total per cycle in any crop, on soils with Magnesium deficiency.

ROSALIQ

MAGFLOW 338 +S

Benefits

- Improves photosynthesis due to the building up of chlorophyll.
- Helps in the transport of starch and sugars to fruits, due to better photosynthesis process.
- Rapid correction of deficiencies due to synergistic effect of magnesium and sulphur, allowing better nutrient uptake by the leaves.
- Improves the balance of magnesium in conditions of excessive concentrations of ammonium, calcium and potassium.
- Affects positively the quality of oil content to oil crops, especially by the pods, as a result of the parallel uptake of magnesium and sulphur by activating several enzymes.

Characteristics and composition

- **Colour:** Light brown*
- **Type:** Flow
- **pH at 20°C:** 10-10.6
- **Safety Data Sheet:** FSL-037
- **Density:** 1.35

	MgO	SO_3
%	25	12.8
g/L	338	173

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

Ideal for crops of high demand in magnesium and sulphur.
For curative control due to deficiency or imbalance in the assimilation of magnesium.

PERENNIALS AND FRUIT TREES: 4 x 2 L/ha at red spot stage to fruit enlargement. **Grapes:** 2 x 5 L/ha at fruit set and from cluster closing to beginning of ripening. **Vine grapes:** 3 x 4 L/ha, 15 days before cluster closing, during cluster closing and 15 days after cluster closing. **Citrus, avocado:** 2 x 5 L/ha during main growth stages in fall and spring. **Walnut:** 2 x 6 L/ha during vegetative growth and at fruit filling. **Kiwi:** 4 x 4 L/ha after petal fall, 30, 40 and 50 days after full flower. **Pome fruits:** when low on leaf Mg, 3 x 5 L/ha every 15 days until end of summer. **Stone fruit:** 3 x 5 L/ha after second fruit fall every 15 days.

ARABLE CROPS: **Potato:** 2 x 4 L/ha, one week after full emergence and 15 days later. **Sugar beet:** 2 L/ha, at 6-8 leaf stage. **Cereals:** 2 L/ha, between start and end of tillering.

VEGETABLES: 3 x 3 L/ha from 4-6 leaf stage in 15 day intervals. **Chicory, endive:** 2 L/ha at 6-8 leaf stage. **Tomato:** 2 x 2 L/ha during vegetative growth. **Berries:** 3 x 3 L/ha before bud burst, and during fruit development. **Bean, pea:** 2 x 5 L/ha at 6 leaf stage, and 15 days later. **Lettuce, carrot:** 2 x 4 L/ha 14 days after transplanting or emergence, if deficient repeat every 7-10 days.

DRIP IRRIGATION: On any crop: 6–20 L/ha total per cycle in any crop, on soils with Mg deficiency.

ROSALIQ

PK 19-21+TE

Benefits

- Improves flowering, fruit setting and healthy and extensive root system due to highly available Phosphorus and Potassium.
- Improves photosynthesis and root development due to Phosphorus content.
- Supports development of sugar and starch due to Potassium content.
- Increases plant vigour and resistance to low temperature as a result of the available Potassium and Trace Elements.

Characteristics and composition

- **Colour:** Green*
- **Type:** Clear liquid
- **pH at 20°C:** 7.5-8.5
- **Safety Data Sheet:** FSL-092
- **Density:** 1.47

	P_2O_5	K_2O	B	Cu	Fe	Mn	Mo	Zn
%	19	21	0.045	0.03	0.12	0.15	0.012	0.12
g/L	279	309	0.66	0.44	1.76	2.2	0.176	1.76

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

➜ **PERENNIALS CROPS: Grapes:** 3 x 4 L/ha from fruit setting and all 15 days. **Soft fruit:** 1-2 x 6-8 L during vegetation stage every 14 days. 1-3 x 6-8 L/ha beginning of fruit setting until harvest. **Stone fruit:** 2-3 x 6-8 L/ha beginning of fruit setting until harvest every 10-14 days. **Pome fruits:** 2-4 x 6-8 L/ha after fruit drop and harvesting. **Strawberries:** 6 L/ha at the beginning of vegetation and 1-3 x 6 L/ha from fruit set to harvest every 10-14 days. **Turf and golf greens:** 1-5 x 6-8 L/ha during vegetation period. **Christmas trees/tree nursery:** 1-3 x 6-8 L/ha from beginning of vegetation stage and every 15 days. **Hop:** 2-5 x 6-8 L/ha from 50 cm stage to beginning of flowering and all 15 days.

➜ **ARABLE CROPS: Pea, bean, soybean:** 1-2 x 4-6 L/ha in 6-8 leaf stage and 10-14 days later. **Alfalfa:** 5 L/ha to new crops when enough leaf cover or 5 L/ha 1 week after each cut. **Oilseed rape:** 1-2 x 5 L/ha in spring from beginning of vegetation until pre-flowering stage. **Sugar beet:** 2 x 4-6 L/ha from 6-8 leaf stage until row closure. **Cereals:** 6 L/ha from 3 leaf stage and 1-2 x 4-6 L/ha in spring in between stem elongation and flag leaf. **Potato:** 2-3 x 4-6 L/ha from tuber filling and all 15 days. **Maize:** 6 L/ha at 4-8-leaf stage. **Sunflower:** 4-6 L/ha from 4-6 leaf stage. **Tobacco:** 2-4 x 6-8 L/ha from 4-6 leaf stage and all 10 days.

➜ **VEGETABLES: General:** 1-2 x 6-8 L/ha when once enough leaf-surface is present. **Cabbage, broccoli, cauliflower, brussels sprouts:** 4 L/ha at 4-6 leaf stage (after transplanting) and 2-3 x 4-8 L/ha from stem extension/head development every 7-14 days. **Asparagus:** 1-3 x 8 L/ha starting at middle of the vegetation period. **Medicinal and spice plants:** 1-2 x 6-8 L/ha if enough leaf area has developed. **Carrot:** 1-2 x 3-5 L/ha when crop is 15 cm height and 2 weeks later.

➜ **DRIP IRRIGATION OR TANK MIX:** 3.5-7.0 % in irrigation water (35-70 L/ha 1000 L water), volume per ha and year depends on the need.

ROSALIQ

NPK 6-6-10 +FE

Benefits

- Improves plant growth and fruit setting, because of the high availability of nutrients.
- Reduces crop defects as a result of the complete formulation.
- Improves the quality of grains due to direct phosphorus availability.

Characteristics and composition

- **Colour:** Green*
- **Type:** Clear liquid
- **pH at 20°C:** 6
- **Safety Data Sheet:** FSL-020
- **Density:** 1.2

	N	N ur	P_2O_5	K_2O	Fe
%	6	6	6	10	0,05
g/L	73	73	73	122	

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommandations

Supports the plant growth and the fruit setting. For all crops.

➜ **PERENNIALS CROPS: Grapes:** 3-4 x 5 L/ha from fruit setting and at 10-14 days intervals. **Fruit trees:** 2-3 x 5 L/ha after petal fall and at 10-14 days intervals. **Nut trees:** 3 x 5 L/ha from dried stigma on and at 10-14 day intervals. **Strawberries:** 1-2 x 5-10 L/ha in the spring and 5 l/ha after harvest in late summer/early autumn. **Olive:** 5-10 L/ha before flowering and 5-10 L/ha 1-2 weeks after flowering. **Hop:** 3-4 x 5 L/ha in the plant protection period. **Nursery:** 3-5 x 0.05% for leaf application or 0.1% as soil application.

➜ **ARABLE CROPS: Cereals:** 4 L/ha between stem elongation and flag leaf. **Pea, Bean, Soybean:** 3 L/ha at 6-8 leaf stage. **Oilseed rape:** 2 x 4 L/ha in spring from start of vegetation to blooming. **Sugar beet:** 1-2 x 5 L/ha from 6-8 leaf stage until row closure. **Winter cereals:** 5-10 L/ha at begin of vegetation and 1-2 x 5-10 L/ha from tillering to flag leaf stage. **Summer cereals:** 1-2 x 5-10 L/ha from tillering to flag leaf stage. **Potato:** 3 x 4-5 L/ha from stolon initiation and all 15 days; in stress situation additionally 3 x 5-10 L/ha every 7-14 days. **Sweet potato:** 1-3 x 5 L/ha after total emergence and during tuber bulking every 7-14 days. **Sunflower:** 5 L/ha starting at 4-6 leaf stage. **Flax:** 2 x 4-5 L/ha at 5 cm height and at 8-10 cm stage.

➜ **VEGETABLES: General: young plants:** 2-5 x 0.5 % from 2 leaf stage every 7-10 days. **Greenhouse crops:** 2-5 x 0.5 % for leaf or soil applications. **Open field crops:** 2-5 x 5-10 L/ha during the vegetative growth every 7-14 days.

ROSALIQ NPK 8-8-6 +TE

Benefits

- ➜ Improves plant growth and fruit setting, because of the high availability of nutrients.
- ➜ Reduces crop defects as a result of the complete formulation.
- ➜ Improves the quality of grains due to direct phosphorus availability.

Characteristics and composition

- **Colour:** Green*
- **Type:** Clear liquid
- **pH at 20°C:** 6
- **Safety Data Sheet:** FSL-020
- **Density:** 1.2

	N	N nit	N am	N ur	P_2O_5	K_2O	B	Cu	Fe	Mn	Mo	Zn
%	8	1	1.5	5.5	8	6	0.01	0.01	0.02	0.02	0.001	0.01
g/L	95	12	18	65	95	71	0.12	0.12	0.24	0.24	0.012	0.12

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

Supports the plant growth and the fruit setting. For all crops.

➜ **PERENNIALS CROPS:** **Grapes:** 3-4 x 5 L/ha from fruit setting and at 10-14 days intervals. **Fruit trees:** 2-3 x 5 L/ha after petal fall and at 10-14 days intervals. **Nut trees:** 3 x 5 L/ha from dried stigma on and at 10-14 day intervals. **Strawberries:** 1-2 x 5-10 L/ha in the spring and 5 l/ha after harvest in late summer/early autumn. **Olive:** 5-10 L/ha before flowering and 5-10 L/ha 1-2 weeks after flowering. **Hop:** 3-4 x 5 L/ha in the plant protection period. **Nursery:** 3-5 x 0.05% for leaf application or 0.1% as soil application.

➜ **ARABLE CROPS:** **Cereals:** 4 L/ha between stem elongation and flag leaf. **Pea, Bean, Soybean:** 3 L/ha at 6-8 leaf stage. **Oilseed rape:** 2 x 4 L/ha in spring from start of vegetation to blooming. **Sugar beet:** 1-2 x 5 L/ha from 6-8 leaf stage until row closure. **Winter cereals:** 5-10 L/ha at begin of vegetation and 1-2 x 5-10 L/ha from tillering to flag leaf stage. **Summer cereals:** 1-2 x 5-10 L/ha from tillering to flag leaf stage. **Potato:** 3 x 4-5 L/ha from stolon initiation and all 15 days; in stress situation additionally 3 x 5-10 L/ha every 7-14 days. **Sweet potato:** 1-3 x 5 L/ha after total emergence and during tuber bulking every 7-14 days. **Sunflower:** 5 L/ha starting at 4-6 leaf stage. **Flax:** 2 x 4-5 L/ha at 5 cm height and at 8-10 cm stage.

➜ **VEGETABLES:** **General: young plants:** 2-5 x 0.5 % from 2 leaf stage every 7-10 days. **Greenhouse crops:** 2-5 x 0.5 % for leaf or soil applications. **Open field crops:** 2-5 x 5-10 L/ha during the vegetative growth every 7-14 days.

ROSALIQ

NPK 10-4-7+TE

Benefits

- ➜ Improves plant growth and fruit setting, because of high available nutrients.
- ➜ Reduces crop defects due to complete formulation.
- ➜ Improves the quality of grains due to direct phosphorus availability.

Characteristics and composition

- **Colour:** Green*
- **Type:** Clear liquid
- **pH at 20°C:** 7.6
- **Safety Data Sheet:** FSL-060
- **Density:** 1.19

	N	N ur	P_2O_5	K_2O	B	Cu	Fe	Mn	Mo	Zn
%	10	10	4	7	0.04	0.008	0.02	0.04	0.004	0.03
g/L	119	119	48	83	0.47	0.09	0.24	0.47	0.047	0.36

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

Supports the plant growth and the fruit setting to all crops.

➜ **PERENNIALS CROPS:** **Grapes:** 3-4 x 5 L/ha from fruit setting and at 10-14 day intervals. **Fruit trees:** 2-3 x 5 L/ha after petals fall and at 10-14 day intervals. **Nuts trees:** 3 x 4 L/ha at dried stigma stage and all 15 days. **Strawberries:** 1-2 x 5-10 L/ha in the spring and 5 L/ha after harvest in late summer/early autumn. **Olive:** 5-10 L/ha before flowering and 5-10 L/ha 1-2 weeks after flowering. **Hop:** 3-4 x 5 L/ha during the plant protection period. **Nursery:** 3-5 x 0.05% for leaf application or 0.1% for soil application.

➜ **ARABLE CROPS:** **Winter cereals:** 5-10 L/ha at beginning of vegetation and 1-2 x 5-10 L/ha from tillering to flag leaf stage. **Summer cereals:** 1-2 x 5-10 L/ha from tillering to flag leaf stage. **Pea, bean, soybean:** 5 L/ha in 6-8 leaf stage. **Oilseed rape:** 1-2 x 5-10 L/ha in spring at beginning of vegetation to blooming (high application rate in stress situations). **Sugar beet:** 1-2 x 5 L/ha from 6-8 leaf stage till row closure. **Potato:** 3 x 4-5 L/ha from stolon initiation and all 15 days; during stress situation 3 x 5-10 L/ha every 7-14 days. **Sweet potato:** 1-3 x 5 L/ha after total emergence and during tuber bulking every 7-14 days. **Sunflower:** 5 L/ha from 4-6 leaf stage. **Flax:** 4-5 L/ha at 5 cm and a second application of 4-5 L/ha at 8-10 cm.

➜ **VEGETABLES:** **Young plants:** 2-5 x 0.5 % starting at 2 leaf stage and all 7-10 days. **Greenhouse crops:** 2-5 x 0.5 % for leaf or soil applications. **Open field vegetables:** 2-5 x 5-10 L/ha during the vegetative stage and every 7-14 days.

BORON 150

Benefits

- Fast uptake by the crop and very mobile within the plant results in a good feeding effect.
- Highest concentration of Boron and high efficiency due to high quality and consistent true liquid formulation (no sedimentation).
- Improves flowering and fruit formation by activating the reproductive cells (pollen).
- Aids the transformation of nitrate into amino acids with a view to support the synthesis of glucosides & proteins.

Characteristics and composition

- **Colour:** Yellowish*
- **Type:** Clear liquid
- **pH at 20°C:** 7.5-8.5
- **Safety Data Sheet:** FSL-005
- **Density:** 1.36

	B
%	11
g/L	150

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

ARABLE CROPS: **Maize:** 1-2 L/ha at 4-5 leaf stage and at tasselling. **Potato:** 1-2 L/ha 30 days after planting and 30-40 days after. **Oilseed rape:** 1-2 L/ha at 5 leaf stage and 2-4 L/ha from stem elongation to onset of flowering stage. **Sugar beet:** 2 L/ha between 6-8 leaf to fully-grown rows. **Sunflower:** 2 L/ha from 4-5 leaf pairs. **Wheat:** 2,5 L/ha at flag leaf (only when < 1.2 mg B/kg soil). **Soybean, peanuts:** 1-2 L/ha flower bud formation, start of flowering and 15 days later. **Alfalfa:** 1-2 L/ha after each cutting. **Cotton:** 1-2 L/ha before forming of flower bud and < 4 applications at intervals of 15 days.

PERENNIALS AND FRUIT TREES: **Citrus, avocado, mango:** 3-4 L/ha at pre-flowering, after fall of petals, during fruit forming, later every 15-30 days if necessary. **Pineapple, papaya:** 1-2 L/ha, 30 days after planting and in 15-30 days intervals before flower induction. **Banana, plantain:** 3-4 L/ha 2-4 applications every 20-30 days. **Stone and pome fruits:** 3-4 L/ha after leaf opening, after flowering, at fruit sizing, later intervals of 15-30 days if necessary. **Vine and grapes:** 1-2 L/ha after leaf opening, before flowering, after flowering. **Olive tree:** 1 L/ha before flowering.

VEGETABLES: **Tomato, bell pepper, eggplant, okra, melon, cucumber:** 1-2 L/ha 30 days after emergence or during opening of flower buds, every 15 days or after each harvest. **Beet:** 2-4 L/ha at 6-8 leaf stage. **Asparagus:** 2 L/ha at opening of leaves and young buds. **Cabbage:** 2 L/ha 2 weeks after transplantation. **Peas:** 2 L/ha from 8-10 cm up to flowering. **Carrot:** 2 L/ha between 10-15 cm stage. **Strawberry:** 1 L/ha before flowering. **Celery:** 2 L/ha 40 days after transplant. **Broccoli, cauliflower, spinach:** 1-2 L/ha, 20-40 days after transplant and at 10-15 days intervals. **Cucurbits:** 1 L/ha before flowering.

ORCHARDS: 1 L/ha at flower coaching and setting. **Seedlings:** 1-2 L/ha 10 days after emergence or after leaf unfolding, then every 5-30 days. **Roses:** 1 L/ha pre-flowering. **Carnation:** 1 L/ha pre-flowering at 40, 60 and 80 days after germination. **Marigold:** 1 L/ha at blossom and at opening of flowers.

DRIP IRRIGATION OR TANK MIX: Maximum 0.01-0.05% in irrigation water (0.1-0.5 L/1000 L water), but always be aware that this % has to include also the Boron of the irrigation water. Maximum 4 L/ha and year.

ROSALIQ

BORON 102 +Mo

Benefits

- ➜ Provides Boron and improves nitrogen use efficiency due to a combination with Molybdenum, essential for nodulating crops such as legumes.
- ➜ Optimal for crops with high Boron demand due to slow mobility within the plant, because their transport is mainly driven by the transpiration stream.
- ➜ Boron activates the formation of reproductive cells (pollen), improving flowering and fruit formation.

Characteristics and composition

- **Colour:** Green*
- **Type:** Clear liquid
- **pH at 20°C:** 8.1
- **Safety Data Sheet:** FSL-067
- **Density:** 1.27

	B	Mo
%	8	0.8
g/L	102	10

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

Ideal for legumes rhizobial nodulation and for favouring the flowering and the setting of fruits.

➜ **ARABLE CROPS:** **Maize:** 2-3 L/ha at 4-5 leaf stage and at tasselling. **Potato:** 2-4 L/ha 30 days after planting and 30-40 days after. **Soybean, peanuts:** 2-3 L/ha at flower bud formation, start of flowering and 15 days later. **Alfalfa:** 1-3 L/ha after each cutting. **Cotton:** 2-3 L/ha before forming of flower bud and < 4 applications at intervals of 15 days. **Oilseed rape:** 1-2 L/ha at 5 leaf stage and 2-4 L/ha at beginning stem elongation to onset of flowering stage.

➜ **PERENNIALS AND FRUIT TREES:** **Citrus, avocado, mango:** 4-5 L/ha at pre-flowering, after fall of petals, during fruit forming, later every 15-30 days if necessary. **Pineapple, papaya:** 2-3 L/ha 30 days after planting and in 15-30 days intervals before flower induction. **Banana, plantain:** 4-5 L/ha 2-4 applications every 20-30 days.

➜ **VEGETABLES:** **Peas:** 3 L/ha, from 8-10 cm up to flowering.

BORON 60 +Mn+Mo+S

Bénéfices

- ➜ Permet de prévenir ou corriger rapidement les carences grâce à une combinaison équilibrée de B, Mn et S. Assimilation rapide, effet immédiat.
- ➜ Optimise la photosynthèse grâce aux teneurs en soufre et manganèse.
- ➜ Intervient dans la croissance de la plante, améliore la floraison et la formation des fruits. Favorise la synthèse de protéines.
- ➜ A préconiser de préférence dans les sols érodés ou à pH basiques, ou à fortes teneur en MO.

Characteristics and composition

- **Colour:** Brown*
- **Type:** Suspension
- **pH at 20°C:** +/- 8.3
- **Safety Data Sheet:** FSL-104
- **Density:** 1.33

	B	Mn	SO_3
%	4,5	6	32,5
g/L	60	80	432

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

Idéal pour les cultures à forte demande de bore, molybdène et soufre.

➜ **GRANDES CULTURES:** **Colza:** 5 L/ha en 2 applications au stade B4-B6 et à partir du stade C1-D2. **Betteraves:** 5 l/ha, à la fermeture du rang. **Tournesol:** 5 l/ha au stade 4 à 5 paires de feuilles. **Soja:** 5 l/ha au stade 8 cm. **Pois - féveroles:** 5 l/ha au stade 8 cm. **Luzerne:** 5 l/ha en 2 applications à la reprise de végétation et après la coupe.

➜ **ARBORICULTURE ET CULTURES PÉRENNES:** **Vignes:** 4-5 L/ha, avant et après floraison.

➜ **MARAICHAGE:** **Tomates, poivron, aubergine, melon, concombre:** 4-5L/ha 30 jours après émergence, ouverture bourgeons floraux puis tous les 15 jours. **Asperges:** 5L/ha ouverture des jeunes bourgeons. **Chou:** 5L/ha 2 semaines après plantation. **Pois:** 3L/ha stade 8-10cm jusqu'à la floraison. **Carotte:** 3L/ha stade 10-15cm. **Chou-fleur, épinards, brocoli:** 2-3 L/ha 20-40 après plantation, et tous les 15 jours. **Fraise**: 4 L/ha, avant floraison. **Céleri:** 5 L/ha 40 jours après plantation.

ROSALIQ

BORFLOW 89 +Mo+S+Ca

Benefits

- Ensures a fast and longtime absorption of nutrients without damaging the crop, thanks to the suspension of micronized particles based on calcium borate.
- The combination of Boron and Calcium gives more resistance of cell membranes and reduces the risk of abiotic stress damages to the crop.
- Improves flowering and fruit formation by activating the reproductive cells (pollen) due to boron content.
- The combination of Boron, Molybdenum, Sulphur and Calcium supports the synthesis of glucosides and proteins, which are essential in the growth of cells and tissues and for the harvested product quality.
- Contributes to Nitrogen uptake and yield improvement due to Sulphur content.
- Promotes N efficiency due to the Molybdenum content, which is an essential nutrient for the efficient growth of Rhizobia nodules.

Characteristics and composition

- **Colour:** White*
- **Type:** Flow
- **pH at 20°C:** 7.7-8.7
- **Safety Data Sheet:** FSL-101
- **Density:** 1.52

*Colour differences may occur and do not affect the quality of the fertilizer.

	B	Mo	SO_3	CaO
%	5.85	0.78	34	10
g/L	89	12	517	152

Recommendation

For the preventive and curative control of insufficiency states due to deficiency or imbalance in the assimilation of boron, molybdenum, sulphur and calcium with short and long term effects.

➜ **ARABLE CROPS:** **Maize:** 2-3 L/ha at 4-5 leaf stage and at tasselling. **Potato:** 2-4 L/ha 30 days after planting and 30-40 days after. **Sugar beet:** 1.5-3 L/ha between 6-8 leaves to fully-grown rows. **Soybean, peanuts:** 2-3 L/ha at flower bud formation, start of flowering and 15 days later. **Alfalfa:** 1-3 L/ha, after each cutting. **Cotton:** 2-3 L/ha before forming of flower bud and < 4 applications at intervals of 15 days. **Rapeseed:** 2-3 L/ha at 5 leaf stage and 3-5 L/ha beginning stem elongation. **Sunflower:** 3 L/ha at stage 4 to 5 pairs of leaves

➜ **PERENNIALS AND FRUIT TREES:** **Citrus, avocado, mango:** 5 L/ha, pre-flowering , after fall of petals, during fruit forming, and later every 15-30 days if necessary. **Pineapple, papaya:** 3 L/ha, 30 days after planting and in 15-30 days intervals before flower induction. **Olive tree:** 2 L/ha, before flowering.

➜ **VEGETABLES:** **Tomato, bell pepper, eggplant, okra, melon, cucumber:** 2-3 L/ha, 30 days after emergence or during opening of flower buds, every 15 days or after each harvest. **Beet:** 3-5 L/ha, at 6-8 leaf stage. **Asparagus:** 3 L/ha, at opening of leaves and young buds. **Cabbage:** 3 L/ha 2 weeks after transplantation. **Peas:** 3 L/ha from 8-10 cm up to flowering. **Carrot:** 3 L/ha, between 10-15 cm stage. **Strawberry:** 2 L/ha before flowering. **Celery:** 3 L/ha, 40 days after transplant. **Broccoli, cauliflower, spinach:** 2-3 L/ha, 20-40 days after transplant and at 10-15 days intervals. **Cucurbits:** 1-2 L/ha before flowering.

➜ **ORCHARDS:** 1-2 L/ha at flower coaching and setting. **Seedlings:** 2-3 L/ha 10 days after emergence or after leaf unfolding, then every 5-30 days. **Roses:** 0.8-1.7 L/ha Pre-flowering. **Carnation:** 2 L/ha pre-flowering at 40, 60 and 80 days after germination. **Marigold:** 1 L/ha at blossom and at opening of flowers.

ROSALIQ

BORFLOW 100 +Mo+S

Benefits

- ➜ Corrects boron, molybdenum and sulphur deficiencies in high pH, eroded soils and soils with high organic content due to the balanced combination of nutrients.
- ➜ Improves flowering and fruit formation by activating the reproductive cells (pollen) thanks to the high boron content.
- ➜ Contributes to nitrogen uptake and yield improvement due to Sulphur content.
- ➜ The growth of cells and tissues and the harvested product quality is improved due to the combination of Boron, Molybdenum, Sulphur.
- ➜ Improves Nitrogen efficiency due to Molybdenum content which benefits symbiotic nodules.

Characteristics and composition

- **Colour:** White*
- **Type:** Flow
- **pH at 20°C:** 8
- **Safety Data Sheet:** FSL-058
- **Density:** 1.35

	B	Mo	SO_3
%	7.4	0.74	34.5
g/L	100	10	466

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

Ideal for crops of high demand in Boron, Molybdenum and Sulphur due to the balanced combination.

➜ **ARABLE CROPS:** **Maize:** 2-3 L/ha 4-5 leaf stage and at tasselling. **Oilseed rape :** 1-2 L/ha at 5 leaf stage and 2-4 L/ha from stem elongation to onset of flowering stage. **Sunflower:** 3 L/ha from 4-5 leaf pairs. **Soybean, bean, peanuts:** 2-3 L/ha flower bud formation, start of flowering and 15 days later. **Alfalfa:** 1-3 L/ha, after each cutting. **Cotton:** 2-3 L/ha, before forming of flower bud and < 4 applications at intervals of 15 days.

➜ **PERENNIALS AND FRUIT TREES:** **Citrus, avocado, mango:** 4-5 L/ha, pre-flowering, after fall of petals, during fruit forming, and later every 15-30 days if necessary. **Vine and grapes:** 2-3 L/ha, after leaf opening, before flowering and after flowering. **Olive tree:** 2 L/ha, before flowering.

➜ **VEGETABLES:** **Tomato, bell pepper, eggplant, okra, melon, cucumber:** 2-3 L/ha 30 days after emergence or during opening of flower buds, every 15 days or after each harvest. **Beet:** 3-5 L/ha at 6-8 leaf stage. **Asparagus:** 3 L/ha at opening of leaves and young buds. **Cabbage:** 3 L/ha 2 weeks after transplantation. **Peas:** 3 L/ha from 8-10 cm up to flowering. **Carrot:** 3 L/ha between 10-15 cm stage. **Strawberry:** 2 L/ha before flowering. **Celery:** 3 L/ha 40 days after transplant. **Broccoli, cauliflower, spinach:** 2-3 L/ha 20-40 days after transplant and at 10-15 days intervals.

ROSALIQ

BORFLOW 101 +Ca

Benefits

- ➜ Ensures a fast and longtime absorption of nutrients without damaging the crop, because of the suspension of micronized particles of calcium borate.
- ➜ Highly efficient product due to its homogenous, stable formulation.
- ➜ Synergistic effect as a result of the simultaneous application of Boron and Calcium.
- ➜ The combination of Boron with Calcium gives more resistance to abiotic stress by improving the cell membrane structure.
- ➜ Support the synthesis of glucosides, proteins and the growth of cells and tissues as a result of boron and calcium synergisms.

Characteristics and composition

- **Colour:** White*
- **Type:** Flow
- **pH at 20°C:** 7.3-8.3
- **Safety Data Sheet:** FSL-100
- **Density:** 1.44

	B	CaO
%	7	12
g/L	101	173

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

Recommended throughout the fruit setting and development stages. It is a complementary source of Calcium and Boron for crops, which need large inputs of these nutrients. Promoting the quality of the fruits, preventing nutritional imbalances due to boron and calcium deficiency.

➜ **ARABLE CROPS:** **Maize:** 2-3 L/ha at 4-5 leaf stage and at tasselling. **Potato:** 2-4 L/ha 30 days after planting and 30-40 days after. **Oilseed rape:** 1-2 L/ha at 5 leaf stage and 2-4 L/ha at beginning stem elongation to onset of flowering stage. **Sugar beet:** 1,5-3 L/ha between 6-8 leaf stage and fully-grown rows. **Sunflower:** 3 L/ha from 4-5 leaf pairs. **Wheat:** 2.5 L/ha at flag leaf (only when < 1.2 mg B/kg soil). **Soybean:** 3 L/ha at stage 8-10 cm. **Alfalfa:** 1-3 L/ha after each cutting. **Cotton:** 2-3 L/ha before forming of flower bud and < 4 applications at intervals of 15 days.

➜ **PERENNIALS AND FRUIT TREES:** **Citrus, avocado, mango:** 4-5 L/ha, pre-flowering, after fall of petals, during fruit forming, and later every 15-30 days if necessary. **Pineapple, papaya:** 2-3 L/ha 30 days after planting and in 15-30 days intervals before flower induction. **Banana, plantain:** 4-5 L/ha, 2-4 applications every 20-30 days. **Stone and pome fruits:** 4-5 L/ha after leaf opening, after flowering, at fruit sizing, later intervals of 15-30 days if necessary. **Vine and grapes:** 1-2 L/ha after leaf opening, before flowering after flowering. **Olive tree:** 2 L/ha before flowering.

➜ **VEGETABLES:** **Tomato, bell pepper, eggplant, okra, melon, cucumber:** 2-3 L/ha 30 days after emergence or during opening of flower buds, every 15 days or after each harvest. **Beet:** 3-5 L/ha, at 6-8 leaf stage. **Asparagus:** 2 L/ha, 4 applications during vegetative growth. **Strawberry:** 2 L/ha before flowering. **Celery:** 3 L/ha, 40 days after transplant. **Cabbage, broccoli, cauliflower, spinach:** 2-3 L/ha, 20-40 days after transplant and at 10-15 days intervals.

➜ **ORCHARDS:** 1-2 L/ha at flower coaching and setting. **Seedlings:** 2-3 L/ha, 10 days after emergence or after leaf unfolding, then every 5-30 days. **Roses:** 0.8-1.7 L/ha Pre-flowering. **Carnation:** 2 L/ha pre-flowering at 40, 60 and 80 days after germination. **Marigold:** 1 L/ha at blossom and at opening of flowers.

ROSALIQ

COPPERFLOW 250

Benefits

- ➜ Ensures a fast action due to the copper from copper oxychloride.
- ➜ Improves Nitrogen efficiency and helps with healthier plant growth due to copper content.
- ➜ Reduced the risk of dwarf plants as result of sustained copper feeding.
- ➜ Assists the process of photosynthesis, and improves plant metabolism due to copper content.
- ➜ Serves to intensify flavour and colour in fruits and vegetables.

Characteristics and composition

- **Colour:** Green*
- **Type:** Flow
- **pH at 20°C:** 5.5-7.5
- **Safety Data Sheet:** FSL-026
- **Density:** 1.3

	Cu
%	19.2
g/L	250

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

Ideal for crops of high demand in copper

➜ **ARABLE CROPS: Cereals (spring):** 1 L/ha in spring at start of growth, 2 x 1 L/ha after 3 leaf stage until end of tillering. **Cereals (winter):** 1 L/ha in fall after 3 leaf stage. **Soybean:** 1 L/ha after 6 leaf stage. **Maize:** 0.5-1 L/ha after 4 leaf stage.

➜ **PERENNIALS CROPS: Citrus:** 2-4 L/ha

➜ **VEGETABLES: Onion:** 1 L/ha at 4 leaf stage, 1 L/ha beginning bulb initiation, 1 L/ha bulb enlargement.

➜ **ON ANY OTHER CROP:** 1 L/ha in 300 L water (or 0.25% solution) when needed to prevent or correct deficiency symptoms.

ROSALIQ

FERRUM 46 +Mn EDTA

Benefits

- ➜ Essential in photosynthesis process because of synergistic effect of Manganese assistance to Iron in building the chlorophyll molecule.
- ➜ Directly assimilable by the plant due to EDTA form of both micro-nutrients.
- ➜ Supports improved crop growth in high pH calcareous soils, avoiding Iron deficiency induced chlorosis, due to synergistic effect of Iron- and Manganese-Chelates.

Characteristics and composition

- **Colour:** Red-brown*
- **Type:** Clear liquid
- **pH at 20°C:** 6-8
- **Safety Data Sheet:** FSL-108
- **Density:** 1.3

	MgO	SO_3
%	25	12.8
g/L	338	173

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

For the preventive and curative control of deficiency or imbalance in the assimilation of iron.

➜ **GENERAL:** 3 L/ha in 300 L water or 1% solution if applied by hand, during early crop growth stages, when needed.

➜ **ARABLE CROPS:** **Cereals:** 2 L/ha after 3 leaf stage. **Potato:** 2 x 3 L/ha at row closing at 10 day interval. **Soybean:** 2 x 2 L/ha at 6 leaf stage, repeat 15 days later. **Oilseed rape:** 2 L/ha at 4 leaf stage. **Sugar beet:** 3 x 2 L/ha at 4-6 leaf stage and every 14 days.

➜ **PERENNIALS AND FRUIT TREES:** **Pine trees and Ornamental trees:** 3 x 2 L/ha during petal fall, fruit set and fruit enlargement. **Vineyard:** 3 x 2 L/ha when clusters are visible, during cluster separation and at separate flower bud. **Pome fruits:** 3 L/ha when fruit reaches 2.5 cm or 30-60 mL/tree at late winter to soil (irrigated). **Stone fruits:** 30-60 mL/tree at late winter to soil (irrigated), 2 x 3 L/ha from fruit setting to harvest.

➜ **VEGETABLES:** **Strawberry, other berries:** 400 mL/100 m row before start of vegetative phase, 3 L/ha after growth start in spring as often as needed.

➜ **ORNAMENTAL CROPS:** 400 mL/1000 L in fertigation to begin of growth, 1 L/100 liter spray solution before flowering. **Greens:** 5 L/ha in >400 L water, if needed.

ROSALIQ

FERRUM 100 EDTA

Benefits

- The EDTA formulated Iron is the most reliable Fe source for leaf application due to a good crop tolerance, and allowing a better circulation in plant tissues independently of the weather conditions.
- Important role of Ferrum in respiratory functions, in the activation of chlorophyll synthesis, improving the photosynthesis activity.
- Correction of Fe deficiency condition at soils with pH>7, sandy soils, or where an excess of Copper, Potassium or Magnesium is observed.

Characteristics and composition

- **Colour:** Brown*
- **Type:** Flow
- **pH at 20°C:** 7-8,5
- **Safety Data Sheet:** FSL-105
- **Density:** 1.3

	Fe
%	7.7
g/L	100

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

For the preventive and curative control of deficiency or imbalance in the assimilation of iron.

➜ **GENERAL:** 1.5 L/ha in 300 L water or 0.5% solution if applied by hand, during early crop growth stages, when needed.

➜ **ARABLE CROPS:** **Bean:** 2 x 1 L/ha in two applications, from 5-10 cm stage. **Cereals:** 1 L/ha at begin of vegetation in spring. **Potato:** 2 x 1.5 L/ha at row closing at 10 day interval. **Soybean:** 2 x 1 L/ha at 6 leaf stage, repeat 15 days later. **Oilseed rape:** 1 L/ha at 4 leaf stage. **Sugar beet:** 3 x 1 L/ha at 4-6 leaf stage and every 14 days.

➜ **PERENNIALS CROPS:** **Grape:** 4 x 1 L/ha, at 2 - 3 leaves, separated grapes, flower buds separated, and nodding. **Pome fruit:** 2 L/ha when fruit reaches 2.5 cm or 15 - 30 mL/tree at late winter to soil (irrigated), no application during flowering. **Pine trees:** 3 x 1 L/ha during petal fall, fruit set and fruit enlargement. **Core trees:** 3 x 1 L/ha during fruit set, fall of the calyx and young fruits. **Stone fruits:** 15 - 30 mL/tree at late winter to soil (irrigated), 1 x 1.5 L/ha from fruit setting to harvest.

➜ **VEGETABLES:** **Strawberry, other berries:** 200 mL/100 m row before start of vegetative phase, 1.5 L/ha after growth start in spring as often as needed. **Greens:** 2.5 L/ha in >400 L water, if needed.

➜ **ORNAMENTAL CROPS:** 200 mL/1000 L in fertigation to begin of growth, 0.5 L/100 L spray solution before flowering.

ROSALIQ

MANGANESE 100 +Cu+S

Benefits

- A combined nutrient mix to improve Manganese, Copper and Sulphur uptake in soils with high pH or excess of organic matter, or on highly eroded tropical soils, helping plants to reboot.
- Supports the protein quality due to high concentration of sulphur.
- Enhances pollen fertility and shortage in carbohydrate supply during grain filling stages due to sufficient supply of manganese and copper.
- High concentrated Manganese formula improves cold resistance of the crop, reducing delays of booting stages after winter break.

Characteristics and composition

- **Colour:** Blue*
- **Type:** Clear liquid
- **pH at 20°C:** 3-4
- **Safety Data Sheet:** FSL-035
- **Density:** 1.3

	SO_3	Cu	Mn
%	15	2.6	7.7
g/L	195	34	100

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

Improves availability of manganese and sulphur during soil imbalance of calcium, magnesium and iron associated with high pH, organic, sandy and eroded soils or during cold wet periods helping plants to reboot.

➜ **PERENNIALS AND FRUIT CROPS: Pome fruits:** 4 L/ha prior to flowering, otherwise at petal fall. Repeat 10-14 days later. **Stone fruits:** 4 L/ha at fruit set. If necessary, a second application 10-14 days later. **Grapes:** 3-5 L/ha at flowering buds visible, at flower buds separated and at fruit set. **Blackcurrant, raspberry, pommegranate:** 3 L/ha at start of flowering. **Conifers:** 5 L/ha once there is new season leaf production, and again in early autumn.

➜ **ARABLE CROPS: Cereals (wheat, barley, rye, oats):** 3 L/ha between 3 leaf stage and second node detectable. 1.5 L/ha from third node detectable to the end of booting. Seed dressing: 6 L per tonne. **Maize:** 3 L/ha at 6-8 leaf stage. Seed dressing: 8 L per tonne. **Soybean:** 3 L/ha, at 3rd trifoliate leaf and 1 L/ha at side shot formation. **Beans, peas:** 3 L/ha at 4-6 leaf stage and at start and end of flowering. Seed dressing: 6 L per tonne. **Linseed:** 3 L/ha when crop is 15 cm tall. **Oilseed rape:** For a single application: 3 L/ha at onset of stem elongation. For moderate deficiency: 3 L/ha at 4-6 leaf stage and at stem elongation. For severe deficiency, an extra application 10-14 days later. Avoid application during flowering. Seed dressing: Up to 22 L per tonne. **Potatoes:** 3 L/ha 1 week after 100% emergence. Following petiole analysis further application of 3 L/ha during tuber bulking possible. **Sugar beet:** 3 L/ha from 4-6 leaf stage. **Sunflower:** 3 L/ha at 4-8 pairs of leaves.

➜ **VEGETABLES: Carrot, leek, parsnip:** 3 L/ha 40 days after seeding (15 cm tall). For moderate to severe deficiency repeat applications at 10-14 day intervals (3 applications maximum). **Onion, garlic**: 5 L/ha at 4 leaf stage, 5 L/ha bulb initiation, 5 L/ha bulb enlargement. **Asparagus:** 3 L/ha when there is sufficient leaf area to intercept spray and prior to senescence of ferns. **Brassicas:** 3-5 L/ha from 4-6 leaf stage. **Cucurbits:** 3-5 L/ha applied from the 4-6 leaf stage onwards. **Lettuce, spinach:** 3 L/ha 2 weeks after transplanting. Repeat applications may be necessary at 10-14 day intervals. Final application one month before harvest. **Protected Crops:** 0.25 L per 100 L water maximum concentration, water rate = 1000 L/ha max. Refer to equivalent field grown crop for application timing.

➜ **FORRAGE: Alfalfa:** 5-7 L/ha at dormancy break, if necessary repeat after every cut when re-growth has occurred. **Fodder Beet:** 5 L/ha from 4-6 leaf stage. **Grass (grazing):** 5 L/ha 10-14 days before «turnout»/grazing. **Grass (growth):** 5 L/ha as soon as growth initiates in spring. For moderate to severe deficiency, repeat applications at 10-14 day intervals.

➜ **ORNAMENTALS: Daffodil, tulip, lily (field grown):** 4 L/ha when crop is 10 to 15 cm tall, repeat applications at 7-10 day intervals. Do not apply to crops grown under glass or plastic and to the crop in flower. **Turf and Grass (amenity):** 5 L/ha as soon as growth starts in spring. For moderate to severe deficiency, repeat applications at 10-14 day intervals.

ROSALIQ

MANGANESE 150 +S

Benefits

- Supplies Manganese and Sulphur to the crops when natural nutrient availability is low due to high pH soil, excess of organic matter or highly eroded tropical soils.
- Highly absorbable manganese by the plants as a result of the concentrated, homogenous, stable formulation.
- Optimizes photosynthesis due to manganese (catalyser of chlorophyll synthesis and support of nitrogen dynamics) and sulphur.
- Reduces delay of booting stages after winter break, due to improvement of cold resistance of the crop from high Manganese concentration.

Characteristics and composition

- **Colour:** Pink*
- **Type:** Clear liquid
- **pH at 20°C:** 2.5
- **Safety Data Sheet:** FSL-011
- **Density:** 1.37

	Mn	SO_3
%	11	17.6
g/L	150	241

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

Improves availability of manganese and sulphur associated with high pH, organic, sandy and eroded soils or during cold wet periods helping plants to reboot.

➜ **PERENNIALS AND FRUIT CROPS:** **Pome fruits:** 4 L/ha prior to flowering for severe deficiency, otherwise at petal fall. Repeat 10-14 days later. **Stone fruits:** 4 L/ha at fruit set. If necessary, a second application 10-14 days later. **Grapes:** 4 L/ha at flowering buds visible, at flower buds separated and at fruit set. **Berries:** 4 L/ha at start of flowering. **Conifers:** 4 L/ha once there is new season leaf production, and again in early autumn.

➜ **ARABLE CROPS:** **Cereals:** 4 L/ha between 3 leaf stage and end of stem elongation. **Maize:** 4 L/ha at 6-8 leaf stage. **Soybean, beans, peas:** 4 L/ha at 4-6 leaf stage and at start and end of flowering, for Marsh Spot). **Oilseed rape:** For a single application: 4 L/ha at onset of stem elongation. For moderate deficiency: 3 L/ha at 4-6 leaf stage and at stem elongation. **Potatoes:** 4 x 1 L/ha after flowering and then repeat every 15 days. **Sugar beet:** 4 L/ha at row closing. **Sunflower:** 4 L/ha at 4-8 pairs of leaves.

➜ **VEGETABLES:** **Root and stem vegetables:** 4 L/ha 40 days after seeding (15 cm tall). **Bulb vegetables:** 4 L/ha at 4 leaf stage, 4 L/ha bulb initiation, 4 L/ha bulb enlargement. **Asparagus:** 4 L/ha when there is sufficient leaf area to intercept spray and prior to senescence of ferns. **Brassicas:** 4 L/ha from 4-6 leaf stage. **Cucurbits:** 4 L/ha applied from the 4-6 leaf stage onwards. **Leaf vegetable:** 4 L/ha 2 weeks after transplanting. **Protected crops:** 0.25 L per 100 L water maximum concentration, water rate = 1000 L/ha max. Refer to equivalent field grown crop for application timing.

➜ **FORRAGE:** **Alfalfa:** 4-6 L/ha at dormancy break, if necessary repeat after every cut when re-growth has occurred. **Fodder beet:** 4 L/ha from 4-6 leaf stage. **Grass (grazing):** 3 L/ha 10-14 days before «turnout»/grazing. **Grass (growth):** 3 L/ha as soon as growth initiates in spring, repeat every 14 days (up to 3 times).

➜ **ORNAMENTALS:** **Daffodil, tulip, lily (field grown):** 3 L/ha when crop is 10-15 cm tall, repeat applications at 7-14 day intervals. Do not apply to crops grown under glass or plastic. Do not apply to the crop in flower. **Turf and grass (amenity):** 5 L/ha as soon as growth starts in spring, repeat every 14 days (up to 3 times).

ROSALIQ

MANGANESE 235 +N

Benefits

- Highly and fast absorbed by the plants because of the form of Manganese nitrate.
- Creates the possibility to react to acute Manganese deficiency due to the extreme fast nutrition effect.
- Improves manganese supply on organic, sandy or eroded soils with high pH and during cold wet periods helping plants to reboot, due to rapid uptake of manganese and nitrogen.

Characteristics and composition

- **Colour:** Pink*
- **Type:** Clear liquid
- **pH at 20°C:** <1
- **Safety Data Sheet:** FSL-112
- **Density:** 1.55

*Colour differences may occur and do not affect the quality of the fertilizer.

	N	N nit	Mn
%	7.7	7.7	15.1
g/L	119	119	235

Recommendation

PERENNIALS AND FRUIT CROPS: **Pome fruits:** 1-2 L/ha after petal fall, when fruits reach walnut size and after harvest. **Stone fruits:** 1-2L/ha at fruit set and 10-14 days later. **Grapes:** 1-2 L/ha at flowering buds visible, at flower buds separated and at fruit set. **Conifers:** 1-2 L/ha once there is new season leaf production, and again in early autumn. **Hops:** 2-4 x 1 L/ha, after 50 cm to start flowering.

ARABLE CROPS: **Cereals (winter):** 2 L/ha after 3 leaf stage, and 2 L/ha until end of booting. **Cereals (summer):** 2 L/ha after 3 leaf stage and 1 L/ha until end of booting. **Maize:** 1-2 L/ha at 6-8 leaf stage. **Soybean, beans, peas:** 2 L/ha at 4-6 leaf stage (for deficiency/ yield) and at start and end of flowering (for marsh spot). **Linseed:** 1-2 L/ha when crop is 15 cm tall. **Oilseed rape:** For a single application: 1-2 L/ha at onset of stem elongation. For moderate deficiency: 1-2 L/ha at 4-6 leaf stage and at stem elongation. For severe deficiency: an extra application 10-14 days later. Avoid application during flowering. **Potatoes:** 1-4 x 1 L/ha first time 1 week after 100% emergence. Afterwards an interval of 15 days. **Sugar beet:** 1-2 L/ha from 4-6 leaf stage. **Sunflower:** 1-2 L/ha at 4-8 pairs of leaves.

VEGETABLES (OPEN-FIELD): **Root and stem vegetables:** 1-2 L/ha 40 days after seeding (15 cm tall). **Bulb vegetables:** 3 x 1 L/ha at 4 leaf stage, at bulb initiation and at bulb enlargement. **Asparagus:** 1-2 L/ha when there is sufficient leaf area to intercept spray and prior to senescence of ferns. **Brassicas:** 1-2 L/ha from 4-6 leaf stage onwards. **Cucurbits:** 1-2 L/ha applied from the 4-6 leaf stage onwards.

FORRAGE: **Alfalfa:** 2 L/ha at dormancy break, if necessary repeat after every cut when re-growth has occurred. **Fodder beet:** 1-2 L/ha from 4-6 leaf Stage onwards. **Grass (grazing and cutting):** 1-2 L/ha as soon as growth initiates in spring, repeat every cutting/grazing (up to 5 times), but application minimum 10-14 days before grazing/cutting.

DRIP IRRIGATION: 0.1-0.2 % in irrigation water (1-2 L/ 1000 L water), maximum 2 L/ha and year. Refer to equivalent field grown crop for application timing.

ROSALIQ

MANGANESEFLOW 44 +Mg+S+N

Benefits

- Optimises photosynthesis, synthesis of protein as well as storage of sugar and proteins due to synergistic effect of the nutrients.
- The synergistic balance of nutrients allows good uptake and metabolic use by the crop.
- Strengthens crops growth on organic, sandy, high pH and eroded soils or during cold wet periods due to photosynthesis endorsing.

Characteristics and composition

- **Colour:** White*
- **Type:** flow
- **pH at 20°C:** 3.5-4.5
- **Safety Data Sheet:** FSL-025
- **Density:** 1.34

	N	Nur	MgO	SO_3	Mn
%	3.8	3.8	5.4	16.3	3.3
g/l	51	51	72	218	44

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

Improves chlorophyll concentration and storage of sugar and protein.

➜ **PERENNIALS AND FRUIT CROPS:** **Pome fruits:** 3 x 4 L/ha after petal fall, when fruits reach walnut size, after harvest. **Stone fruits:** 2 x 4 L/ha at fruit set, and 10-14 days later. **Grapes:** 3 x 3 L/ ha when flowering buds are visible, when flower buds separate and at fruit set. **Berries:** 4 L/ha before start of flowering. **Conifers:** 6 L/ha once there is new season leaf production, and again in early autumn. **Tobacco:** 3 x 2 L/ha after four leaf stage, repeat every 14 days. **Hops:** 2-4 x 2 L/ha, after 0.5 m to start of flowering. **Oil palm:** 4 L/ha when moderate to severe deficiency.

➜ **ARABLE CROPS:** **Cereals:** 4-8 L/ha after three leaves stage and end of tillering. **Maize:** 4 L/ha at 6-8 leaf stage. **Soybean, beans, Peas:** 3 x 6 L/ha at 4-6 leaf stage (for deficiency/yield), at start and end of flowering (for Marsh Spot). **Linseed:** 4 L/ha when crop is 15 cm tall. **Oilseed rape:** 2 x 6 L/ha at 4-6 leaf stage and at stem elongation; avoid application during flowering. **Potatoes:** 4 x 2 L/ha 1 week after 100% flowering, and at 15 day intervals. **Sugar beet:** 4-8 L/ha at row closing. **Sunflower:** 4 L/ha at 4-8 pairs of leaves.

➜ **VEGETABLES (OPEN FIELDS):** **Root and stem vegetables:** 4 L/ ha 40 days after seeding (15 cm). **Bulb vegetables:** 3 x 4 L/ha at 4 leaf stage, bulb initiation, and bulb enlargement. **Asparagus:** 6 L/ha when there is sufficient leaf area to intercept spray and prior to senescence of ferns. **Brassicas:** 3-6 L/ha from 4-6 leaf stage. **Cucurbits:** 3-6 L/ha from the 4-6 leaf stage. **Leaf vegetables:** 4 L/ha 2 weeks after transplanting.

➜ **FORRAGE:** **Alfalfa:** 10 L/ha at dormancy break, if necessary repeat after every cut when re-growth has occurred. **Fodder beet:** 4-8 L/ha from 4-6 leaf stage. **Grass (grazing):** 4 L/ha 10 to 14 days before «turnout»/grazing. **Grass (growth):** 4 L/ha as soon as growth initiates in spring, repeat every 10-14 days (up to 5 times).

➜ **ORNAMENTALS:** **Daffodil, tulip, lily (field grown):** 6 L/ha when crop is 10-15 cm tall, repeat applications at 7-14 day intervals. Do not apply to crops grown under glass or plastic. Do not apply to the crop in flower. **Turf and grass (amenity):** 4 L/ha as soon as growth starts in spring, repeat every 10-14 days (up to 5 times).soon as growth starts in spring, repeat every 14 days (up to 3 times).

ROSALIQ

MANGANESEFLOW 98 +Cu+S+N

Benefits

- Improves availability of manganese in high pH, organic, sandy or highly eroded soils, or during cold wet periods, helping plants to reboot.
- Strengthens crop growth during cold wet periods due to photosynthesis endorsing.
- Supports the protein setting due to high concentration of Sulphur.
- Enhances pollen fertility and shortage in carbohydrate supply during grain filling stages due to sufficient supply of manganese and copper.
- Suitable for seed treatment to accelerate seed germination, by providing manganese at early growth stages when there is too little leaf cover for effective foliar uptake.

Characteristics and composition

- **Colour:** Pink*
- **Type:** Flow
- **pH at 20°C:** <1
- **Safety Data Sheet:** FSL-112
- **Density:** 1.55

*Colour differences may occur and do not affect the quality of the fertilizer.

	N	Nur	SO_3	Cu	Mn
%	2.1	2.1	30	2.35	7.2
g/L	29	29	408	32	98

Recommendation

Improves availability of manganese , copper and sulphur associated to high pH, organic, sandy and eroded soils or during cold wet periods helping plants to reboot.

➜ PERENNIALS AND FRUIT CROPS: **Pome fruits:** 4 L/ha prior to flowering for severe deficiency, otherwise at petal fall . Repeat 10-14 days later. **Stone fruits:** 4 L/ha at fruit set. If necessary, a second application 10-14 days later. **Grapes:** 3-5 L/ha at flowering buds visible, at flower buds separated and at fruit set. **Berries:** 3 L/ha at start of flowering. **Conifers:** 5 L/ha once there is new season leaf production, and again in early autumn.

➜ ARABLE CROPS: **Cereals:** 3 L/ha between 3 leaf stage to second node detectable, 1.5 L/ha from third node detectable to the end of booting. **Maize:** 3 L/ha at 6-8 leaf stage. **Soybean:** 3 L/ha, at 3rd trifoliate leaf and 1 L/ha at side shot formation. **Beans, peas:** 3 L/ha at 4-6 leaf stage (for deficiency/yield) and at start and end of flowering (for marsh spot). **Linseed:** 3 L/ha when crop is 15 cm tall. **Oilseed Rape:** For a single application: 3 L/ha at onset of stem elongation. For moderate deficiency: 3 L/ha at 4-6 leaf stage and at stem elongation. For severe deficiency, an extra application 10-14 days later. Avoid application during flowering. **Potatoes:** 3 L/ha 1 week after 100% emergence. Following petiole analysis further application of 3 L/ha during tuber bulking possible. **Sugar Beet:** 3 L/ha from 4-6 leaf stage. **Sunflower:** 3 L/ha at 4-8 pairs of leaves. Seed dressing (small grains): 6-10 L/tonne. In case of moderate or severe deficiency add to all previous recommendations repeated applications at 10-14 day intervals (3 applications maximum) ending one month before harvest.

➜ VEGETABLES: **Root and stem vegetables:** 3 L/ha 40 days after seeding (15 cm tall). **Bulb vegetables:** 5 L/ha at 4 leaf stage, 5 L/ha bulb initiation, 5 L/ha bulb enlargement. **Asparagus:** 3 L/ha when there is sufficient leaf area to intercept spray and prior to senescence of ferns. **Brassicas:** 3-5 L/ha from 4-6 leaf stage. **Cucurbits:** 3-5 L/ha applied from the 4-6 leaf stage onwards. **Leaf vegetables:** 3 L/ha 2 weeks after transplanting. **Protected crops:** 0.25 litres per 100 litres water maximum concentration, water rate = 1000 L/ha max. Refer to equivalent field grown crop for application timing. In case of moderate or severe deficiency add to all previous recommendations repeated applications at 10-14 day intervals (3 applications maximum) ending one month before harvest, transplanting or emergence, when deficient repeat every 7-10 days.

➜ FORRAGE: **Alfalfa:** 5-7 L/ha at dormancy break, if necessary repeat after every cut when re-growth has occurred. **Fodder beet:** 5 L/ha from 4-6 leaf stage. For moderate to severe deficiency, repeat applications at 10-14 day intervals. **Grass (grazing):** 5 L/ha 10 to 14days before «turnout»/grazing. **Grass (growth):** 5 L/ha as soon as growth initiates in spring. For moderate to severe deficiency, repeat applications at 10-14 day intervals.

➜ ORNAMENTALS: **Daffodil, tulip, lily (field grown):** 4 L/ha when crop is 10 to 15 cm tall, repeat applications at 7-14 day intervals. Do not apply to crops grown under glass or plastic. Do not apply to the crop in flower. **Turf and grass (amenity):** 5 L/ha as soon as growth commences in spring. For moderate to severe deficiency, repeat applications at 10-14 day intervals.

ROSALIQ

MANGANESEFLOW 262 +N

Benefits

- Highly absorbed by the plants thanks to the combination of manganese nitrate and manganese carbonate.
- Provides short and long term effect thanks to the combination of manganese nitrate and manganese carbonate.
- Improves manganese supply on organic, sandy or eroded soils with high pH and during cold wet periods helping plants to reboot, due to rapid uptake of manganese and nitrogen forms.

Characteristics and composition

- **Colour:** Light brown*
- **Type:** Flow
- **pH at 20°C:** 3.5-4.5
- **Safety Data Sheet:** FSL-016
- **Density:** 1.49

	N	N ur	N nit	SO_3	Mn
%	3.8	1.8	2	3.85	17.6
g/L	57.4	27.4	30	57	262

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

Improves availability of manganese on high pH, organic, sandy, eroded soils as well as during cold wet periods helping plants to reboot.

➜ **PERENNIALS AND FRUIT CROPS:** **Pome fruits:** 2 L/ha after petal fall, when fruits reach walnut size and after harvest. **Stone fruits:** 2 L/ha at fruit set, and 10-14 days later. **Grapes:** 3 L/ha at flowering buds visible, at flower buds separated and at fruit set. **Berries:** 2 L/ha before start of flowering. **Conifers:** 3 L/ha once there is new season leaf production, and again in early autumn. **Tobacco:** 1 L/ha after 4 leaf stage, repeat every 14 days (up to 3 times). **Hops:** 2-4 x 1 L/ha, after 50 cm to start flowering.

➜ **ARABLE CROPS:** **Cereals (winter):** 2 L/ha after 3 leaf stage, and 2 L/ha until end of booting. **Cereals (summer):** 1 L/ha after 3 leaf stage, and 1 L/ha until end of booting. **Maize:** 2 L/ha at 6-8 leaf stage. **Soybean, beans, peas:** 2 L/ha at 4-6 leaf stage (for deficiency/yield) and at start and end of flowering (for marsh spot). **Linseed:** 2 L/ha when crop is 15 cm tall. **Oilseed rape:** For a single application: 2 L/ha at onset of stem elongation. For moderate deficiency: 2 L/ha at 4-6 leaf stage and at stem elongation. For severe deficiency: an extra application 10-14 days later. Avoid application during flowering. **Potatoes:** 2 L/ha 1 week after 100% emergence. Following petiole analysis further application of 2 L/ha during tuber bulking possible. 1 L/ha for seed treatment. **Sugar beet:** 2 L/ha from 4-6 leaf stage. **Sunflower:** 2 L/ha at 4-8 pairs of leaves.

➜ **VEGETABLES (OPEN-FIELD):** **Root and stem vegetables:** 2 L/ha 40 days after seeding (15 cm tall). **Bulb vegetables**: 2.5 L/ha at 4 leaf stage, 2.5 L/ha bulb initiation, 2.5 l/ha bulb enlargement. **Asparagus:** 2 L/ha when there is sufficient leaf area to intercept spray and prior to senescence of ferns. **Brassicas:** 3 L/ha from 4-6 leaf stage. **Cucurbits:** 3 L/ha applied from the 4-6 leaf stage onwards. **Leaf vegetables:** 2 L/ha 2 weeks after transplanting. **Protected crops:** 0.2 L per 100 L water maximum concentration, water rate = 1000 L/ha max. Refer to equivalent field grown crop for application timing.

➜ **FORRAGE:** **Alfalfa:** 5 L/ha at dormancy break, if necessary repeat after every cut when re-growth has occurred. **Fodder beet:** 2 L/ha from 4-6 leaf stage. **Grass (grazing):** 2 L/ha 10-14 days before «turnout»/grazing. **Grass (growth):** 2 L/ha as soon as growth initiates in spring, repeat every 10-14 days (up to 5 times).

➜ **ORNAMENTALS:** **Daffodil, tulip, lily (field grown):** 4 L/ha when crop is 10-15 cm tall, repeat applications at 7-14 day intervals. Do not apply to crops grown under glass or plastic. Do not apply to the crop in flower. **Turf and grass (amenity):** 2 L/ha as soon as growth commences in spring, repeat every 10-14 days (up to 5 times).

➜ **DRIP IRRIGATION OR TANK MIX:** 0.1-0.2 % in irrigation water (1-2 L/ 1000 L water), maximum 2 L/ha and year.

ROSALIQ

ALGAFEED 9-4-7 +TE

Benefits

- The bioavailable amino acids from the algae *Ascophyllum nodosum* improve the uptake of the nutrient mix of NPK and Trace Elements of the formula.
- Improves resistance to biotic and abiotic stress conditions due to nutrient interaction with the natural compounds from the algae.
- Provides a high proportion of natural plant hormones and amino acids that penetrate the cellular tissues focusing on the physiological processes of the plant, stimulating its growth and promoting flowering, fruit setting and fruit ripening.

Characteristics and composition

- **Colour:** Black*
- **Type :** Flow
- **pH at 20°C :** 6.8
- **Safety Data Sheet :** FSL-013
- **Density:** 1.19
- **Seaweed:** 10% algae extract of *Ascophyllum nodosum*

*Colour differences may occur and do not affect the quality of the fertilizer.

	N	N ur	N nit	P_2O_5	K_2O	B	Cu	Fe	Mn	Mo	Zn
%	9	8	1	4	7	0.03	0.005	0.02	0.03	0.003	0.02
g/L	105	93	12	47	82	0.35	0.058	0.23	0.35	0.035	0.23

Recommendation

Provides resistance against stress due to weather and soil conditions and supports plant growth and fruit setting.

➜ **PERENNIALS AND FRUIT TREES:** 5 L/ha in 500 L of water, at pre-flowering, during full flower and at fruit setting. **Vine and grapes:** 4-5 L/ha in 300 L of water, after the start of spring vegetation, after opening of flower buds and during full bloom.

➜ **ARABLE CROPS:** **Maize:** 5 L/ha in 300 L of water at 6-8 leaf stage. **Potato:** 5 L/ha in 300 L of water after row closing.

➜ **VEGETABLES:** **Tomato, bell pepper:** 5 L/ha in 500 L of water, pre-flowering, before full bloom, during full bloom and during fruit formation. **Beet:** 5 L/ha in 300 L of water at 6-8 leaf stage.

➜ **OTHER CROPS:** 4-5 L/ha in 500 L of water, 2-3 treatments every 10-14 days during main growth periods.

ROSALIQ

ALGAFEED +Mn+Zn+S

Benefits

➜ High concentration of Manganese allows to:

- Supporting cultural mobilization needs
- Use of water: catalysis in the photosynthesis reaction
- Sugar production: transformation of simple sugars (attractants for pests and diseases) into complex sugars (storage forms)

➜ Zinc intake for growth processes and activating hormonal synthesis

➜ Sulfur for protein synthesis and crop health

➜ Presence of algae to allow better assimilation of the elements

Characteristics and composition

- **Colour:** Brown*
- **Type :** Flow
- **pH at 20°C :** 3-4
- **Density:** 1,3-1,4
- **Seaweed:** 15% algae extract of *Ascophyllum nodosum* - ***N° AMM : 1200295***

	Mn	Zn	SO_3	Algae
%	8,2	4,1	12,8	15
g/L	109	55	171	200

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

➜ **ARABLE CROPS:** **Potatoes:** 5 x 2,5 L/ha from tuber initiation, and then every 10 days. **Maize:** 1-2 x 5 L/ha from 6-8 leaves until limit of sprayer pass. **Onions, garlic, schallot:** 2-3 x 2 L/ha. **Carrot:** 2-3 x 2 L/ha from tuber expansion start.

➜ **TREES AND PERENIAL CROP:** **Grapes:** 5-6 x 2,5 L/ha from beginning of vegetation. **FRUIT TREES:** 5-6 x 2,5 L/ha at visible flower buds visibles.

➜ **VEGETABLES:** **General:** 1 to 4 x 2 – 4 L/ha from enough foliar surface developed. **Root formation:** 1-2 x 4 L/ha from stage 4-6 leaves and every 15 days.

ROSALIQ

ALGAFEED PURE

Benefits

- Enter into the composition of proteins and phytohormones. Improve osmoregulation. Influence stomatal regulation and photosynthesis.
- Neutralize the accumulation of oxidized elements. Form the basis of organic molecules.
- Promotes the germination of pollen in the pollen tube
- Enter into the formation of molecules contributing to taste, odor and coloring.

Characteristics and composition

- **Colour:** Brown*
- **Type :** Flow
- **pH at 20°C :** 3.5-4
- **Safety Data Sheet :** FSL-098
- **Density:** 1.09
- **Seaweed:** 75% algae extract of *Ascophyllum nodosum*

	Fe	Mn
%	0.4	1.8
g/L	4.4	19.6

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

PERENNIALS CROPS: **Nuts:** 4 x 1 L/ha, from the visible flower bud stage (D), to be renewed every 10 to 15 days until full flowering (F). **Apricot, nectarine, peach, cherry, plum, apples, pears:** 4 to 5 x 1 L/ha, from the visible flower bud stage (D), to be renewed every 10 to 15 days until full flowering (F). **Grapes:** 4 x 1 L/ha, at visible cluster stages (F), separate clusters (G), separated floral buds (H).

ARABLE CROPS: **Peas, beans, flageolet beans and broad beans:** 2 L/ha, at the beginning of flowering stage. **Potatoes:** 4 to 10 x 0,5 L/ha, from 100% emergence, every 8 days. **Cereals:** 1 L/ha at the last leaf stage. **Sugarbeet:** 1 L/ha at row closure stage. **Maïze:** 2 L/ha at 6-leaves stage.

VEGETABLES: **Spinach:** 2 x 1 L/ha, on developed leaf surface, every 15 days. **Salad:** 2 x 1 L/ha, at the head stage, every 10 days. **Tomato:** 2 x 1 L/ha, from the visible flowers buds, every 15 days. **Onions, Shallot, Garlic:** 3 x 1 L/ha, from the development stage of the barrel, at 10 – 15 days apart. **Leek:** 3 x 1 L/ha, drom the develoment of the barrel, every 15 days **Cabbage, Artichokes:** 2 x 1 L/ha, as soon as vegetation resumes, every 15 days. **Melon:** 3 x 1 L/ha, from flower buds appear, every 15 days.

ROSALIQ

ALGAFEED PK 15-17+TE

Benefits

- Improves flowering, fruit setting and healthy and extensive root system due to highly available Phosphorus and Potassium.
- Improves photosynthesis and root development due to Phosphorus content.
- Supports development of sugar and starch due to Potassium content.
- Increases plant vigour and resistance to low temperature as a result of the available Potassium and Trace Elements.

Characteristics and composition

- **Coulour:** Brown*
- **Type:** clear liquid
- **pH at 20°C:** 7-7.5
- **Density:** 1.32

	Algae	P_2O_5	K_2O	MgO	S	B	Cu	Fe	Mn	Mo	Zn
%	20	15,1	17,1	0,068	0,14	0,039	0,0075	0,021	0,037	0,0039	0,025
g/L	265	199	225	0,89	1,8	0,51	0,1	0,28	0,49	0,05	0,33

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommandation

➜ **PERENNIALS CROPS:** **Grapes:** 3 x 4 L/ha from fruit setting and all 15 days. **Soft fruit:** 1-2 x 6-8 L during vegetation stage every 14 days. 1-3 x 6-8 L/ha beginning of fruit setting until harvest. **Stone fruit:** 2-3 x 6-8 L/ha beginning of fruit setting until harvest every 10-14 days. **Pome fruits:** 2-4 x 6-8 L/ha after fruit drop and harvesting. **Strawberries:** 6 L/ha at the beginning of vegetation and 1-3 x 6 L/ha from fruit set to harvest every 10-14 days. **Turf and golf greens:** 1-5 x 6-8 L/ha during vegetation period. **Christmas trees/tree nursery:** 1-3 x 6-8 L/ha from beginning of vegetation stage and every 15 days. **Hop:** 2-5 x 6-8 L/ha from 50 cm stage to beginning of flowering and all 15 days.

➜ **ARABLE CROPS:** **Pea, bean, soybean:** 1-2 x 4-6 L/ha in 6-8 leaf stage and 10-14 days later. **Alfalfa:** 5 L/ha to new crops when enough leaf cover or 5 L/ha 1 week after each cut. **Oilseed rape:** 1-2 x 5 L/ha in spring from beginning of vegetation until pre-flowering stage. **Sugar beet:** 2 x 4-6 L/ha from 6-8 leaf stage until row closure. **Cereals:** 6 L/ha from 3 leaf stage and 1-2 x 4-6 L/ha in spring in between stem elongation and flag leaf. **Potato:** 2-3 x 4-6 L/ha from tuber filling and all 15 days. **Maize:** 6 L/ha at 4-8-leaf stage. **Sunflower:** 4-6 L/ha from 4-6 leaf stage. **Tobacco:** 2-4 x 6-8 L/ha from 4-6 leaf stage and all 10 days.

➜ **VEGETABLES:** **General:** 1-2 x 6-8 L/ha when once enough leaf-surface is present. **Cabbage, broccoli, cauliflower, brussels sprouts:** 4 L/ha at 4-6 leaf stage (after transplanting) and 2-3 x 4-8 L/ha from stem extension/head development every 7-14 days. **Asparagus:** 1-3 x 8 L/ha starting at middle of the vegetation period. **Medicinal and spice plants:** 1-2 x 6-8 L/ha if enough leaf area has developed. **Carrot:** 1-2 x 3-5 L/ha when crop is 15 cm height and 2 weeks later.

➜ **DRIP IRRIGATION OR TANK MIX:** 3.5-7.0 % in irrigation water (35-70 L/ha 1000 L water), volume per ha and year depends on the need.

ROSALIQ

SILICAFEED +K

Benefits

➜ High Silicium concentration allows :

- Strenghten the cell walls
- Support plants during abiotic stresses
- Improve the stem vigour

➜ Combinated with Potassium to improve root development and plant vigour.

Characteristics and composition

- **Coulour:** Incolore*
- **Type:** Suspension
- **pH at 20°C:** 13-14
- **Density:** 1.3-1.4

	K_2O	Si
%	20,5	13
g/L	277	182

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommandation

➜ **Arable crops : Cereals:** 3-5 L/ha at regulator stage, to repeat one time in case of lodging sensitive varieties. **Flax :** 2 x 2 L/ha at 5 cm stage and 10 cm. **Potatoes:** 3 x 4 L/ha from nut stage and then every 15 days. **Rapeseed:** 4 L/ha at the beginning of vegetative phase in the spring. **Corn:** 4 L/ha from 4-8 leaves stage. **Sugar beet :** 4 L/ha from 6-8 leaves to row closing. **Sunflower:** 4 L/ha from 4-6 leaves.

➜ **Trees and perennials: Grapevine:** 4 L/ha from 4-5 leaves to start of ripening. **Trees:** 4 L/ha, at visible flower buds. **Hop :** 1-4 x 1 L/ha from harvest to pre-flowering. **Strawberries :** 3-4 x 1 L/ha from vegetative phase every 15 days.

ROSALIQ

SILICAFEED 10-4-9

Benefits

- Helps crop to environmental stresses associated with inadequate rainfall, drought, changing weather patterns, variations in soil and other external conditions due to Silicium added NPK mix.
- Increases shelf life of fruit due to the improvement of plant strength and structure by increasing mechanic resistance of fruits & vegetal tissues.
- Reduces lodging because of the improved cellular structure of the plant.
- Improves leaf erectness and stem strength.
- Assists the absorption of nutrients through leaves due to positive impact of Silicon, which ensures good mineral balance regulation of the plant.

Characteristics and composition

- **Colour:** Blue*
- **Type:** Clear liquid
- **pH at 20°C:** 11.5-12.5
- **Safety Data Sheet:** FSL-063
- **Density:** 1.22

	N	N ur	P_2O_5	K_2O	Si
%	10	10	4	9	0.9
g/L	122	122	49	110	11

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

Increases shelf life of fruits by improving mechanic resistance of fruits & vegetal tissues firmness.

➜ **PERENNIALS CROPS: Orchards:** 4 L/ha, at bud stage, petals fall and 15 days later. **Grapes:** 3-4 x 4 L/ha at fruit setting and every 15 days. **Nuts:** 3 x 4 L/ha at stage of dried stigmas and repeat every 15 days. **Tree nurseries:** 1-3 x 2 L/ha during the vegetation period. **Golf greens:** 2-5 x 2 L/ha during the vegetation period. **Hops:** 1-4 x 1 L/ha from cutting/fixing till pre-flowering. **Strawberries:** 1-3 x 2-4 L/ha at start of vegetative stage and all 15 days.

➜ **ARABLE CROPS: Flax:** 4 L/ha at 5 leaf stage and again at 8 leaf stage. **Potato:** 3 x 4 L/ha from stolon initiation every 15 days. **Rice:** 4 L/ha before flooding and 5 L/ha between flag leaf emergence and booting. **Cereals:** 2-4 L/ha in autumn from the 4-6 leaf stage and 1-2 x 2 L/ha in spring at the beginning of vegetation. **Oilseed rape**: 2 L/ha in autumn at 4-6 leaf stage and 1-2 x 2 L/ha in spring at the beginning of vegetation. **Maize:** 1-2 x 4 L/ha from 4-8 leaf stage. **Sugar beet:** 1-2 x 4 L/ha from 6-8 leaf stage till rows closure. **Pea, bean, soybean:** 3-4 L/ha at bud stage. **Sunflower:** 1-2 x 4 L/ha from 4-6 leaf stage.

➜ **VEGETABLES: General:** 1-4 x 2-4 L/ha if enough leaf surface is developed. **Root forming:** 1-2 x 4 L/ha from 4-6 leaf stage and all 15 days.

ROSALIQ

ZINC 44 +P+Mg+N

Benefits

- Starter fertilizer which promotes vital growth due to the combination of the most essential nutrients in assimilable forms.
- Improves crops start up performance related with adverse weather and soil conditions as a result of the balanced and synergistic effect of the nutrients.
- Promotes root elongation of young seedlings and plants due to a high content of assimilable phosphorus form.
- The absorption of Phosphorus is improved due to the synergistic effect between urea Nitrogen and Phosphorus.

Characteristics and composition

- **Colour:** No colour*
- **Type:** Clear liquid
- **pH at 20°C:** 1.9-2.5
- **Safety Data Sheet:** FSL-032
- **Density:** 1.39

	N	N ur	SO_3	P_2O_5	MgO	Zn
%	3	3	3.8	20	4.8	3.2
g/L	42	42	53	278	67	44

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

Starter fertilizer for all crops for leaf and drip irrigation applications.

➜ **PERENNIALS CROPS:** **Apple:** 5 L/ha at pre-flowering, at fruit setting and 2 L/ha after harvest before leaf fall. **Banana:** 3 x 5 L/ha during the annual cycle or when it is necessary. **Citrus:** 5 L/ha first pre-flowering, repeat all 14 days. **Grapes:** 5 L/ha Bud burst, at bud burst, at berry setting and at end of harvest. **Hops:** 3–5 x 5 L/ha from cutting/fixing until flowering.

➜ **ARABLE CROPS:** **Maize:** 6 L/ha at 4-8 leaf stage. **Rice:** 5 L/ha before flooding. **Winter cereals:** 5 L/ha at 4 leaf stage or at beginning of vegetation in spring. **Summer cereals:** 5 L/ha at 4 leaf stage. **Sunflower:** 0.5-1.0 L/ha at 4–6 leaf stage. **Sugar beets:** 0.5–1.0 L/ha at 8 leaf stage until row closure. **Flax:** 5 L/ha at tip of 1st leaf.

➜ **VEGETABLES:** **Root forming:** 5 L/ha at 10 and 15 cm. **Head forming:** 5 L/ha at 6-9 leaf stage and at head forming. **Fruit forming:** 3-5 L/ha at 6-8 leaf stage, then all 14 days if necessary. **Bulb forming:** 5 L/ha at 6-8 leaf stage. **Legumes:** 1-2 x 3-5 L/ha at 6-8 leaf stage until 6 weeks after emergence.

➜ **DRIP IRRIGATION:** Maximum 0.5-2.5% in irrigation water (5-25 L / 1000 L water). Maximum 50 L/ha and year.

ROSALIQ

ZINC 80 +P+S+N

Benefits

- Starter fertilizer which promotes vital growth due to the combination of the most essential nutrients in assimilable forms.
- Improves crops start up performance related with adverse weather and soil conditions as a result of the balanced and synergistic effect of the nutrients.
- Promotes root elongation of young seedlings and plants due to a high content of assimilable phosphorus form.
- The absorption of Phosphorus is improved due to the synergistic effect between urea Nitrogen and Phosphorus.

Characteristics and composition

- **Coulour:** Transparent*
- **Type:** Clear liquid
- **pH at 20°C:** 0,8
- **Safety Data Sheet:** FSL-062
- **Density:** 1.36

	N	N ur	P_2O_5	SO_3	Zn
%	3	3	19,1	5,3	5,9
g/L	41	41	260	72	80

*Des différences de couleurs peuvent subvenir mais n'affectent en rien la qualité du produit.

Recommendation

Starter fertilizer for all crops for leaf and drip irrigation applications.

➜ **PERENNIALS CROPS:** **Apple:** 5 L/ha at pre-flowering, at fruit setting and 2 L/ha after harvest before leaf fall. **Banana:** 3 x 5 L/ha during the annual cycle or when it is necessary. **Citrus:** 5 L/ha first pre-flowering, repeat all 14 days. **Grapes:** 5 L/ha Bud burst, at bud burst, at berry setting and at end of harvest. **Hops:** 3–5 x 5 L/ha from cutting/fixing until flowering.

➜ **ARABLE CROPS:** **Maize:** 6 L/ha at 4-8 leaf stage. **Rice:** 5 L/ha before flooding. **Winter cereals:** 5 L/ha at 4 leaf stage or at beginning of vegetation in spring. **Summer cereals:** 5 L/ha at 4 leaf stage. **Sunflower:** 0.5-1.0 L/ha at 4–6 leaf stage. **Sugar beets:** 0.5–1.0 L/ha at 8 leaf stage until row closure. **Flax:** 5 L/ha at tip of 1st leaf.

➜ **VEGETABLES:** **Root forming:** 5 L/ha at 10 and 15 cm. **Head forming:** 5 L/ha at 6-9 leaf stage and at head forming. **Fruit forming:** 3-5 L/ha at 6-8 leaf stage, then all 14 days if necessary. **Bulb forming:** 5 L/ha at 6-8 leaf stage. **Legumes:** 1-2 x 3-5 L/ha at 6-8 leaf stage until 6 weeks after emergence.

➜ **DRIP IRRIGATION:** Maximum 0.5-2.5% in irrigation water (5-25 L / 1000 L water). Maximum 50 L/ha and year.

ROSALIQ

ZINC 115 EDTA

Benefits

- Zinc contributes to growth hormone production, internode elongation, efficient bud development and assists the conversion of starches to sugars
- Zinc improves plant resistance to cold temperatures
- Highest Zinc efficiency due the chelated formulation
- Low incompatibility in mixtures compared to other formulations of Zinc
- Perfect for foliar uptake - a possibility to react fast and plant sensitive on Zinc deficiency.

Characteristics and composition

- **Colour:** Clear yellow*
- **Type:** Clear liquid
- **pH at 20°C:** 6-7
- **Safety Data Sheet:** FSL-107
- **Density:** 1.28

	Zn
%	9
g/L	115

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

Starter fertilizer for all crops for leaf and drip irrigation applications.

PERENNIALS CROPS: **Avocado:** On new leaf tissue before flowering 1-2 x 2-3 L/ha for young trees and 1-2 x 4-5 L/ha for mature orchards. **Banana:** 3 x 0.5–1 L/ha during the cycle or when needed. **Citrus:** 2-3 x 1 L/ha at first inflorescence emergence (14 days interval). **Grape:** 1 L/ha at bud burst, at berry setting and after end of harvest. **Hops:** 3–5 x 0.5-1 L/ha from cutting/fixing until flowering. **Pome fruit:** 2 L/ha inflorescence emergence, 2 L/ha at fruit setting and 2 L/ha after harvest before leaf fall. **Stone fruit:** 1-2 L/ha in bud stage and 2 L/ha after harvest, before colouring of the leaves.

ARABLE CROPS: **Flax:** 2 L/ha when enough leaf surface is grown. **Bean:** 2 x 1 L/ha in two applications, stages 2-6- leaf stage and start of flowering. **Cereals (winter):** 0.5-1 L/ha at 4-leaf stage or at begin of vegetation in spring. **Cereals (summer):** 0.5–1 L/ha at 4-leaf stage. **Maize:** 2 L/ha at 4-8 leaf stage (soil application: 3 l/ha). **Rice:** 0.5–1 L/ha at 4-leaf stage. **Sugar Beet:** In case of deficiency 0.5-1 L/ha from 8 leaf stage to row clothing. **Sunflower:** 0.5-1 L/ha at 4–6-leaf stage.

VEGETABLES: **Bulb forming:** 0.5–1 L/ha at 6-8 leaf stage. **Fruit forming:** 1.5 L/ha at 6-8 leaf stage, then every 14 days if needed.**Head forming:** 1 L/ha at 6-9 leaf stage and at head forming.

OTHER: Compatible to mix with the NP 14-48 solution.

ROSALIQ

ZINC 158 +S

Benefits

- Fast supply of Zinc to the plant due to the very fast acting form of Zinc nitrate.
- Activates a variety of enzymes which have influence on a good photosynthetic activity.
- Assists in the conversion of starches to sugars.
- Promotes flowering and branching due to its contribution to an efficient bud development.
- Improves the availability of Zinc in calcareous, sandy, eroded soils and in soils with excessive application of Phosphate fertilizers.

Characteristics and composition

- **Colour:** No colour*
- **Type:** Clear liquid
- **pH at 20°C:** 2.5
- **Safety Data Sheet:** FSL-027
- **Density:** 1.45

	N	N nit	Zn
%	6,3	6,3	
g/L	91	91	213

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

➜ **PERENNIALS CROPS:** **Apple and other pome fruits:** 1 L/ha inflorescence emergence, 2 L/ha at fruit setting and 3 L/ha after harvest before leaf fall. **Banana:** 3 x 0.3–1 L/ha during the cycle or when needed. **Citrus:** 1-2 L/ha first inflorescence emergence, repeat every 14 days. **Grapes:** 1 L/ha at bud burst, 2L/ha at berry setting and 3 L/ha after end of harvest.

➜ **ARABLE CROPS:** **Maize:** 5-10 L/ha to soil pre-emergence, 2 L/ha at 4-8 leaf stage and repeat if needed. **Rice:** soak seeds/seedling at 2% solution before transplanting. Foliar application: 3 L/ha 5-7 weeks after emergence. **Winter cereals:** 1 L/ha at 4 leaf stage or at begin of vegetation in spring. **Summer cereals:** 2 L/ha at 4 leaf stage. **Sunflower:** 2 L/ha at 4–6 leaf stage. **Sugar beet:** 2 L/ha from 8 leaf stage until row closing. **Cotton:** 2 L/ha at 6-8 leaf stage and at ball formation.

➜ **VEGETABLES:** **Root forming:** 1 L/ha at 10 and 15 cm. **Head forming:** 1 L/ha at 6-9 leaf stage and at head forming. **Fruit forming:** 1 L/ha at 6-8 leaf stage, then every 14 days if needed or after every harvest. **Bulb forming:** 2 L/ha at 6-8 leaf stage, repeat if needed.

➜ **SOIL APPLICATION:** Up to 10 L/ha, in 50 l water.

➜ **DRIP IRRIGATION OR TANK MIX:** Maximum 0.5-1.0% in irrigation water (5-10 L/1000 L water), but always be aware that this % has to include also the Zinc of the irrigation water. Maximum 10 L/ha and year.

ROSALIQ

ZINC 213 +N

Benefits

- ➜ Fast supply of Zinc to the plant due to the very fast acting form of Zinc nitrate.
- ➜ Activates a variety of enzymes which have influence on a good photosynthetic activity.
- ➜ Assists in the conversion of starches to sugars.
- ➜ Promotes flowering and branching due to its contribution to an efficient bud development.
- ➜ Improves the availability of Zinc in calcareous, sandy, eroded soils and in soils with excessive application of Phosphate fertilizers.

Characteristics and composition

- **Colour:** No colour*
- **Type:** Clear liquid
- **pH at 20°C:** 2.5
- **Safety Data Sheet:** FSL-027
- **Density:** 1.45

	N	N nit	Zn
%	6,3	6,3	
g/L	91	91	213

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

➜ **PERENNIALS CROPS:** **Apple and other pome fruits:** 1 L/ha inflorescence emergence, 2 L/ha at fruit setting and 3 L/ha after harvest before leaf fall. **Banana:** 3 x 0.3–1 L/ha during the cycle or when needed. **Citrus:** 1-2 L/ha first inflorescence emergence, repeat every 14 days. **Grapes:** 1 L/ha at bud burst, 2L/ha at berry setting and 3 L/ha after end of harvest.

➜ **ARABLE CROPS:** **Maize:** 5-10 L/ha to soil pre-emergence, 2 L/ha at 4-8 leaf stage and repeat if needed. **Rice:** soak seeds/seedling at 2% solution before transplanting. foliar application: 3 L/ha 5-7 weeks after emergence. **Winter cereals:** 1 L/ha at 4 leaf stage or at begin of vegetation in spring. **Summer cereals:** 2 L/ha at 4 leaf stage. **Sunflower:** 2 L/ha at 4–6 leaf stage. **Sugar beet:** 2 L/ha from 8 leaf stage until row closing. **Cotton:** 2 L/ha at 6-8 leaf stage and at ball formation.

➜ **VEGETABLES:** **Root forming:** 1 L/ha at 10 and 15 cm. **Head forming:** 1 L/ha at 6-9 leaf stage and at head forming. **Fruit forming:** 1 L/ha at 6-8 leaf stage, then every 14 days if needed or after every harvest. **Bulb forming:** 2 L/ha at 6-8 leaf stage, repeat if needed.

➜ **SOIL APPLICATION:** Up to 10 L/ha, in 50 l water.

➜ **DRIP IRRIGATION OR TANK MIX:** Maximum 0.5-1.0% in irrigation water (5-10 L/1000 L water), but always be aware that this % has to include also the Zinc of the irrigation water. Maximum 10 L/ha and year.

ROSALIQ

ZINC 600 +N

Benefits

- Contributes to growth hormone production and internode elongation.
- Provides plant resistance to cold temperatures due to its presence in plant tissue.
- Assist in the conversion of starches to sugars.
- Promotes flowering and branching due to its contribution to an efficient bud development.
- Improves the availability of Zinc in calcareous, sandy, eroded soils and in soils with excessive application of Phosphate fertilizers.

Characteristics and composition

- **Colour:** Light blue*
- **Type:** Flow
- **pH at 20°C:** 8-10
- **Safety Data Sheet:** FSL-003
- **Density:** 1.71

	N	N ur	Zn
%	8.7	8.7	35
g/L	149	149	600

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

For the preventive and curative control of Zinc insufficiency due to imbalance in the assimilation of Zinc.

➜ **PERENNIALS CROPS:** **Apple:** 1 L/ha inflorescence emergence, at 1 L/ha fruit setting and 2 L/ha after harvest before leaf fall. **Banana:** 3 x 0.3–1 L/ha during the cycle or when needed. **Citrus:** 1 L/ha first inflorescence emergence, repeat every 14 days. **Grapes:** 1 L/ha at bud burst, at berry setting and after end of harvest. **Hops:** 3–5 x 0.5 L/ha from cutting/fixing until flowering.

➜ **ARABLE CROPS:** **Maize:** 3 L/ha to soil pre-emergence, 1.5 L/ha at 4-6 leaf stage. **Rice:** soak seeds/seedling at 1% solution before transplanting. **Winter cereals:** 0.5-1 L/ha at 4 leaf stage or at begin of vegetation in spring. **Summer cereals:** 0.5-1 L/ha at 4 leaf stage. **Sunflower:** 0.5-1 L/ha at 4–6 leaf stage. **Sugar beet:** 0.5-1 L/ha at 8 leaf stage until row closing.

➜ **VEGETABLES:** **Root forming:** 1 L/ha at 10 and 15 cm. **Head forming:** 1 L/ha at 6-9 leaf stage and at head forming. **Fruit forming:** 1.5 L/ha at 6-8 leaf stage, then every 14 days if needed. **Bulb forming:** 0.25–1 L/ha at 6-8 leaf stage. **Legumes:** 1-2 x 0.5 L/ha in 6-8 leaf stage until 6 weeks after emergence.

➜ **SOIL APPLICATION:** Up to 4 L/ha, in 50 L water.

➜ **DRIP IRRIGATION OR TANK MIX:** Maximum 0.2-0.5% in irrigation water (2-5 L/1000 L water), but always be aware that this % has to include also the Zinc of the irrigation water. Maximum 5 L/ha and year

ROSALIQ

ZINC 688+N

Benefits

- Contributes to growth hormone production and internode elongation.
- Provides plant resistance to cold temperatures due to its presence in plant tissue.
- Assists in the conversion of starches to sugars.
- Promotes flowering and branching due to its contribution to an efficient bud development.
- Improves the availability of Zinc in calcareous, sandy, eroded soils and in soils with excessive application of Phosphate fertilizers.

Characteristics and composition

- **Colour:** Light blue*
- **Type:** Flow
- **pH at 20°C:** 8-10
- **Safety Data Sheet:** FSL-113
- **Density:** 1.72

	N	N ur	Zn
%	5	5	40
g/L	86	86	688

*Colour differences may occur and do not affect the quality of the fertilizer.

Recommendation

For the preventive and curative control of zinc insufficiency due to imbalance in the assimilation of zinc.

➜ **PERENNIALS CROPS:** **Apple:** 1 L/ha inflorescence emergence, at fruit setting and 2 L/ha after harvest before leaf fall. **Banana:** 3 x 0.3–1 L/ha during the cycle or when needed. **Citrus:** 1 L/ha at first inflorescence emergence, repeat every 14 days. **Grapes:** 1 L/ha at bud burst, at berry setting and after end of harvest. **Hops:** 3–5 x 0.5 L/ha from cutting/fixing until flowering.

➜ **ARABLE CROPS:** **Maize:** 3 L/ha to soil pre-emergence 1.5 L/ha at 4-6 leaf stage. **Rice:** soak seeds/seedling at 1% solution before transplanting. **Winter cereals:** 0.5–1 L/ha at 4 leaf stage or at begin of vegetation in spring. **Summer cereals:** 0.5–1 L/ha at 4 leaf stage. **Sunflower:** 0.5-1 L/ha at 4–6 leaf stage. **Sugar beet:** 0.5–1 L/ha at 8 leaf stage until row closing.

➜ **VEGETABLES:** **Root forming:** 1 l/ha at 10 and 15 cm. **Head forming :** 1 L/ha at 6-9 leaf stage and at head forming. **Fruit forming:** 1.5 L/ha at 6-8 leaf stage, then every 14 days if needed. **Bulb forming:** 0.25–1 L/ha at 6-8 leaf stage. **Legumes:** 1-2 x 0.5 L/ha in 6-8 leaf stage until 6 weeks after emergence.

➜ **DRIP IRRIGATION:** Maximum 0.2-0.5% in irrigation water (2-5 L /1000 L water), but always be aware that this % has to include also the Zinc of the irrigation water. Maximum 5 L/ha and year.

Instructions for use & Storage

1

Fill 2/3 of the tank sprayer with clean water, turn on the agitation,

2

Add the plant protection product

3

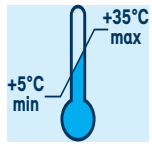
Shake the canister

4

Add the ROSALIQ fertilizer

5

Finish to fill the tank with water



TANK MIXES

Compatibility & recommendations

LABEL RECOMMENDATIONS:
Follow the label recommendation, as suggested for optimal results

SHAKE LIQUIDS:
Ensure thorough mixing of liquids by shaking containers before adding them in the tank

JAR TEST:
Combine tested formulations to check physical compatibility.

NEW MIXTURES:
Improve efficacy by checking chemical compatibility.

PROPER MIXING:
Add products in the right order based on their formulations

SUFFICIENT WATER:
Use recommended amount of water while adding product/s

DISSOLUTION:
Wait until products are dissolved completely before adding more products

WATER/ FERTILIZER:
Consider the quality of water hardness, pH

COLD WATER:
Allow more time for products to mix in cold water

AGITATION STRENGTH:
Apply right agitation speed not too hard or not too slow.

On any other crop, use in case of real need. For any further detail, please contact your advisor.
Rosier SA does not take responsibility for wrong application. Please revise your local regulation or get advice from your local agronomic advisory service.

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