



PRODUCT PROFILE
NºMSR-DOT-05/2005

AQUABOR®

SOLUBLE BORON B21
DISODIUM OCTOBORATE TETRAHYDRATE
(D.O.T.) $\text{Na}_2\text{B}_8\text{O}_{13} \cdot 4 \text{H}_2\text{O}$



CHARACTERISTICS

| | |
|-----------------------------------------------------------------------------------|--------------------|
| MOLECULAR WEIGHT | 412.52 |
| PURITY LIKE B ELEMENT | 21.0 % MIN. |
| $\text{Na}_2\text{B}_8\text{O}_{13} \cdot 4 \text{H}_2\text{O}$ | 99.5 % MIN. |

GENERAL DESCRIPTION

Boron is one of seven micronutrients essential to all plant growth. Boron deficiency has been recognized in a wide range of crops.

Aquabor® is a multi-functional product with a general application in both industrial and consumer products. It is a mild alkaline salt consisting of a fine white powder that is readily soluble in water. Aquabor dissolves even in cool water, with the maximum possible dispersion and solubility, to give supersaturated solutions with high boron concentrations. As such, it has a number of different uses in agro-industrial markets, in addition to its long establish role in farm sprays.

Minera Santa Rita produces its Aquabor® in a modern Spry Dryer plant, wholly constructed in 316 L stainless steel, that guarantees to obtain a high purity and not contaminated product.

See detailed description of APPLICATIONS AND BENEFITS in further pages.

CHEMICAL AND PHYSICAL PROPERTIES

| | |
|-------------------------------------------|-------------------|
| B_2O_3 | 67.5% MIN. |
| Na_2O_3 | 15.0% MÍN. |
| H_2O | 17.0% MAX. |

SIEVE SPECIFICATION

Mesh size ASTM Nº 80 = 2% retained

BULK DENSITY, poured

0.60 ton/m³

Salta (Rep. Argentina)
Ruta Provincial 36 Km.2
Campo Quijano (CP 4407)
Tel. +54 0387 4904135 / 4904904
Fax +54 0387 4904135

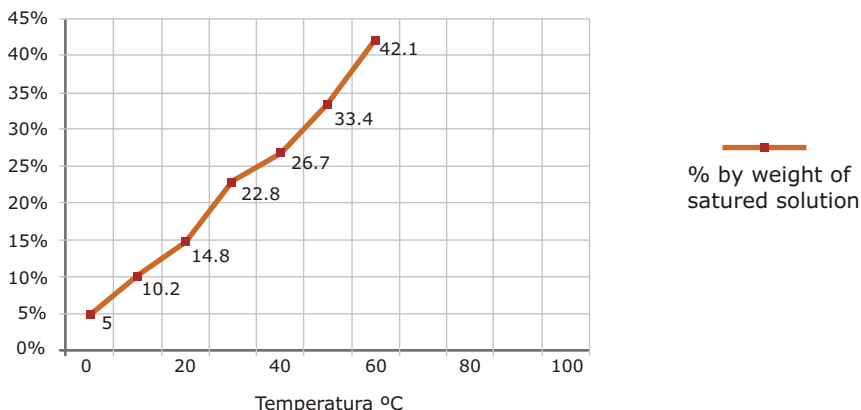
Buenos Aires (Rep. Argentina)
Julio A. Roca 751, 3º Piso, Of. 11
Cap. Federal (CP 1067)
Tel. +54 011 43423669 /
43317239 / Fax +54 011 43431867

Boro do Sul Ltda (Rep. Brasil)
Rua Prof. Clemente Pinho 446
04753-100 - Jd. Promissao - SP
Fone/Fax: (11) 5685-6504
Web: www.borodosul.com.br



SOLUBILITY IN WATER

The diminute particle size of Aquabor and inherent high solubility, even at low temperatures, gives rapid solubility properties even under demanding conditions.



PH

PH = 8.5 (1% by weight in solution at 22 °C)

PH = 7.3 (15% by weight in solution at 22 °C)

PACKAGING

Aquabor® is available in 20 kg multiwall paper sacks or 1000kg big-bags



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APPLICATIONS AND BENEFITS

Fertilizer

Plant growth regulator. Foliar applications due to boron deficiencies. Coating of finished solid fertilisers. Formulate high performance liquids containing either boron alone or a combination of nutrients for spraying, "fertigation" or irrigation.

Correcting Boron Deficiency

In solid or liquid fertilizers, to the seedbed in annual crops or under the foliar canopy of perennial crops. Perennial and annual crops can also be sprayed with boron containing solutions. These are normally tank mixed with other micronutrients or with agrochemical products.

Wood Protection

Flame proofing. Prevent wood decay from microbial attack.

Industrial

Isolation / Flame retardant / Corrosion Inhibition.

Pesticide

Fungicide. Fungi protection. Target ants, cockroaches, crickets, silverfish, earwigs, flies, millipedes, centipedes, mold and mildew.

pH Adjustment

An acidic or basic substance used to alter the acidity (pH) of a solution or product.

Soap/Surfactant

Compounds that have surfactant or detergent properties.

Solvent

Inclusion in multi-element soluble powder formulations for spraying on farm. The amorphous particles of Aquabor facilitate rapid wetting and incorporation in water and move viscous liquids even at low temperatures.

Defoliant

Kill leaves on broad leaf plants. Commonly used in cotton production to remove leaves before harvest.

OTHER BENEFITS

Minimal Crystallisation Effect

Aquabor causes minimum changes to crystallization temperatures or density of formulation

Rapid Dispersion

The amorphous particles of Aquabor facilitate rapid wetting and incorporation in water and more viscous liquids, even at low temperatures.

All data in the above specifications are determined by Minera Santa Rita S.R.L. analytical methods, and corresponds to a final average of our production sampling.

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