

ALPINE MicroBolt B

NUTRIENTS SUPPLIED (grams per litre):

Boron (B)..... 134

PRODUCT PROPERTIES:

Weight: 1.34 kg/L
pH: 7.6 – 8.4
Appearance: clear to slight yellow
Odor: odourless

GENERAL PRODUCT INFORMATION:

ALPINE MicroBolt B® micronutrient is manufactured by utilizing the highest quality raw materials to provide a very agronomically efficient source of plant available boron.

ALPINE MicroBolt B micronutrient delivers:

- Maximum plant nutrient solubility - in furrow or foliar
- Minimal salt index
- No application equipment corrosion
- Compatibility with most other liquid fertilizers
- Tank mixable with most pesticides
- Low impurities
- Neutral pH

FIRST AID: Please see SDS sheet for more information, call (800) 265-2268 or visit us online at www.alpinepfl.com.

THE FOLLOWING CONDITIONS MUST BE OBSERVED IN ORDER TO APPLY ALPINE MicroBolt B MICRONUTRIENT. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN DAMAGE TO THE PLANTS:

- DO USE **ALPINE MicroBolt B** micronutrient under conditions of optimum plant growth including highest humidity, moderate temperature and adequate soil moisture.
- DO USE sufficient water to provide thorough coverage.
- DO consult with your local ALPINE Agronomist or Sales Manager to determine pesticides which are compatible with **ALPINE MicroBolt B** micronutrient.
- DO consult your local ALPINE Agronomist or Sales Manager for rate and application instructions.
- DO USE a small jar or container prior to full scale mixing to proportionally mix all the components to confirm compatibility.
- DO NOT use when the crop is under stress from pests, heat or inadequate soil moisture.
- DO NOT apply during the heat of the day.

***THESE ARE GENERAL PRODUCT RECOMMENDATIONS. PLEASE CONSULT WITH YOUR AUTHORIZED ALPINE DEALER OR ALPINE DISTRICT SALES MANAGER FOR SPECIFIC FERTILITY RECOMMENDATIONS.**

CAUTION: THIS FERTILIZER CONTAINS BORON AND SHOULD BE USED ONLY AS RECOMMENDED. IT MAY PROVE HARMFUL WHEN MISUSED.

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PRODUCT RECOMMENDATIONS

APPLICATION RATE*

Use 1/4 to 1 L/ac either in furrow or as a foliar spray. Optimum rate of application will vary between fields, depending on soil pH and organic matter content. Product should be used on the basis of soil and/or tissue analysis.

DO NOT use boron in furrow in corn or in soybeans planted at 30".

Maximum of 2L/ac of any combination of micronutrients when mixed with a seed placed starter fertilizer.

MIXING INSTRUCTIONS

1. Put 1/3 water or fertilizer in the tank
2. Add correct amount of product
3. Fill tank with balance of water or fertilizer
4. Agitate adequately to mix

ROLE OF BORON

- Vital to the growth and development of the plant, without adequate boron, new growth ceases
- It is necessary in the pollination and seed production stages
- Boron is essential for maintaining a balance between sugars and starches
- A small amount of boron is beneficial to plants but too much can be toxic to plants

SUGAR MOVER

- Boron moves plant sugars up and down the plant daily
- During the night time, boron moves plant sugars from the plant to feed the root system, which in turn feeds the soil biology
- During night, the soil biology exudes food for the roots and then boron moves this food from the roots up into the plant during the day
- This process takes place daily

CELL DEVELOPMENT

- Boron functions in plants in the differentiation of meristematic cells. Without boron, cells may continue to divide, but structural components are not differentiated.
- Missing florets (seeds) in timothy and alfalfa heads
- Larger cereal heads and fuller canola and legume pods

THE "MISSING SEED" THING

Explanation: At the top and the bottom of the pod is an amino acid called GABA. This amino acid must move in the pod to fertilize each and every seed in that pod. No GABA no SEED. The nutrient that moves GABA throughout the pod is boron along with mainly phosphorous, manganese, calcium and other nutrients. Remember boron along with phosphorous moves sugars in the plant daily, so if there is an interruption of this or a lack of nutrients - the SEED DOES NOT BECOME FERTILIZED SO THEREFORE NO SEED.



BORON SOIL AVAILABILITY

- Soils with high pH values reduce solubility and therefore plant uptake
- Soils with low pH values increase solubility but can also lead to leaching of boron out of the root zone
- 0.6 – 1.2 ppm in soil test is medium amount

BORON IN THE LEAF

- Sufficiency tissue test ranges in ppm
 - Canola: 15-20
 - Small grains: 8-20
 - Peas: 15-45
 - Corn: 6-20 at tasseling
 - Soybeans: 25-60

DEFICIENCIES SYMPTOMS

- Plants turn pale green
- Heads poorly developed and sterile
- Deformed flowers
- Proliferation of side shoots resulting in a "witches broom" condition

SELLER WARRANTS THAT THE ABOVE PRODUCT CONFORMS TO ITS CHEMICAL DESCRIPTION AND IS REASONABLY FIT FOR THE PURPOSE ON THE LABEL WHEN USED IN ACCORDANCE WITH DIRECTIONS UNDER NORMAL CONDITIONS OF USE (INCLUDING NORMAL WEATHER CONDITIONS). NEITHER THIS WARRANTY NOR ANY OTHER WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, EXPRESS OR IMPLIED, EXTENDS TO THE USE OF THIS PRODUCT WHEN USED CONTRARY TO THE LABEL INSTRUCTIONS OR UNDER ABNORMAL CONDITIONS (INCLUDING ABNORMAL WEATHER CONDITIONS), AND THE BUYER ASSUMES THE RISK OF ANY SUCH USE. ALPINE STARTER OR FOLIAR APPLICATIONS ARE INTENDED TO SUPPLEMENT EXISTING SOIL FERTILITY PROGRAMS AND WILL NOT BY ITSELF PROVIDE ALL THE NUTRIENTS NORMALLY REQUIRED BY AGRICULTURAL CROPS.

