



**(Disodium  
Octaborate  
Tetrahydrate)**

Boron is one of the most essential elements necessary for plants. Crops that grow in boron deficient soil cannot reach their maximum yield, quantity, and durability. Meristem tissues are the building blocks of plants in which growth and development occur. These tissues should receive a certain level of boron (see dosage table) by means of the plant roots in order to continue their development. Without receiving adequate boron, meristem tissue can expand but it cannot be separated into structural units that provide the speciality of tissues. When the addition of boron ceases, the growth ceases too. Boron deficiency causes bad quality in plants instead of advantageous growth. Bad quality comes from the internal deformity of the tissue and appears as a cavity or smeary dots in pulps of crops. While fruits grow quickly and roots of pulp plants develop quickly underground, much more meristem tissue is required in order to provide this advantage. However, if there is an inadequate amount of boron to develop meristem, soft and rotten points will develop in fruits or underground roots.

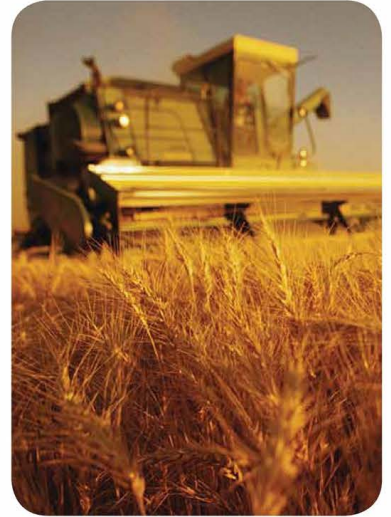


**ETIMINE USA, INC.**



**ETIDOT-67**

Disodium Octaborate Tetrahydrate



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Boron products are used commonly in agriculture for the following applications:

- 1) Fertilizer : micronutrients, directly or in a low concentration mixture
- 2) Herbicide : control of undesired plants and weeds, applied in high concentration
- 3) Pesticide : control of insects/pests, applied in high concentration
- 4) Wood Preservation : high concentration application
- 5) Flame Retardant

A plant's boron requirements differ according to how the plant is formed. For some plants, more boron is required to achieve maximum growth.

- Boron deficiency in grain causes irregular and inadequate development of seeds and particles.
- Boron is effective in developing the blossoms and fruits of all plants. In many plants with boron deficiency, few flowers are observed and the flowers that do grow have irregular pollination. Boron deficiency causes plant bolls to rub off when irregularly pollinated and causes deep cavities in peanuts.

In leafed plants such as vegetables and fruits, boron is applied:

- By adding to dichlorodiphenyltrichloroethanes
- With herbicides in nitrogenous solutions
- With irrigation water

## NECESSARY INFORMATION FOR AGRICULTURAL USE








**ETIDOT-67**  
EC FERTILIZER  
SODIUM BORATE

	<b>Olive, Apple, Pear, Walnut</b> 1st app : Soon after blossoming, applied in 70 g/tree dosage 2nd app: After reaping, applied in same dosage and same way
	<b>Citrus Fruits</b> 1st app : Right before blossoming, applied in 30g/tree dosage 2nd app: 20 days after 1st application, applied in same dosage and same way
	<b>Vineyard</b> 1st app : Before the delivery eye is spread, applied in 1 kg/decare dosage 2nd app: 20 days after 1st application, applied in same dosage and same way
	<b>Plum, Apricot, Cherry, Peach</b> 1st app : Before blossoming, applied in 70 g/tree dosage 2nd app: After reaping, applied in same dosage and same way
	<b>Strawberry</b> 1st app : When plant has 5-6 leaves, applied in 200 g/decare dosage 2nd app: 20 days after the 1st application, applied in same dosage and same way
	<b>Tomato</b> 1st app : When seedling reaches 10-15 cm height, applied in 250 g/decare dosage 2nd app: 20 days after the first application, applied in same dosage and same way
	<b>Cucumber, Lettuce</b> 15-20 days after plants emerge from soil, applied in 500 g/decare dosage

### USAGE, DOSAGE AND TIME:

"Do not exceed the appropriate dosage. Just use where necessary."

**ETIDOT-67**  
Guaranteed content : w/w  
Water-Soluble Boron (B): 20.8%

	<b>Potato</b> 1st app: After knob formation, applied in 200 g/decare dosage 2nd app: 15-20 days after first application, applied in same dosage and same way
	<b>Wheat</b> 1st app: Before planting, applied in 300 g/decare dosage 2nd app: In March or April, applied in same dosage and same way
	<b>Corn</b> 1st app: When plant has 8-10 leaves, applied in 300 g/decare dosage 2nd app: 20 days after first application, applied in the same dosage and same way
	<b>Sunflower</b> 1st app: Before planting, applied in 500 g/decare dosage 2nd app: When the plant reaches 20-30 cm in height, apply to leaf in same dosage
	<b>Carrot, Sugar Beet</b> 1st app: Before or after planting, applied in 500 g/decare dosage 2nd app: When plant is 10-15 cm in height, apply 300 g/decare dosage
	<b>Cabbage</b> 1st app: When the plant has 4-6 leaves, applied in 500 g/decare dosage 2nd app: One week after the first application, applied in same dosage and in same way
	<b>Onion</b> When the plant has 2-3 leaves, applied in 500 g/decare dosage

## IMPORTANT INFORMATION

1. Dosage values on the left side of the page assume that the amount of boron present in the soil is zero. Soil analysis should be done prior to application.
2. Basic application dosage should be determined by expert analysis on the boron content of the soil, plant type, climate, and the kind of soil.
3. If the dosage given on the left side of the page is exceeded, the boron will have a toxic effect and can damage the plant.
4. Should be kept away from animals.
5. The product should be preserved in its package and should not be left in a humid environment. Product will absorb moisture if it comes in contact with the air.

### ETIDOT-67 CHEMICAL FEATURES $\text{Na}_2\text{B}_2\text{O}_7 \cdot 4\text{H}_2\text{O}$

Content	Unit	Value
$\text{B}_2\text{O}_3$	%	67.00 min.
$\text{Na}_2\text{O}$	%	14.00 min.
Purity	%	99.90 min.

### SIEVE ANALYSIS

Size (mm)	Unit	Value
-0.090	%	50.00 min.



Without Boron Fertilizer



With Boron Fertilizer



Without Boron Fertilizer



With Boron Fertilizer



Without Boron Fertilizer



With Boron Fertilizer



Without Boron Fertilizer



With Boron Fertilizer