

## Brassinolide

**Cat:** B8780

**Specification:** 25mg /100mg

**Storage:** Store at 2-8°C, avoid light, and it is valid for 2 years.

### Product Information

**CAS:** 78821-43-9

**English name:** Brassinolide

**Molecular Formula:** C<sub>24</sub>H<sub>48</sub>O<sub>6</sub>

**Molecular Weight:** 480.68

**Appearance (Character):** White powder

**Melting Point:** 256°C-258°C

**Purity:** ≥90.0%

**Solubility:** 10mg/ml in EtOH.

### Introduction

Brassinolide is a broad-spectrum and highly efficient plant growth regulator that significantly increases the yield of various economic crops. It effectively regulates different growth stages of plants and can significantly alleviate the occurrence of pesticide damage, allowing crops to quickly resume growth and eliminate disease spots. It is suitable for food crops, economic crops, vegetables, fruits, and other crops.

Brassinolide is soluble in water and slightly soluble in organic solvents such as methanol, ethanol, and acetone.

### Product Effects:

1. Promotes cell division and fruit enlargement. It has a significant stimulatory effect on cell division, promoting both horizontal and vertical growth of organs, thereby enhancing fruit size.
2. Delays leaf senescence, maintains greenness for a longer period, enhances chlorophyll synthesis, improves photosynthesis, and promotes deeper green coloration of leaves.
3. Breaks apical dominance, promotes lateral bud germination, induces bud differentiation, stimulates lateral branch formation, increases the number of branches and flowers, enhances pollen fertility, thereby increasing fruit quantity and yield.
4. Improves crop quality and marketability. Induces parthenocarpic fruit set, stimulates ovary enlargement, prevents flower and fruit drop, promotes protein synthesis, and increases sugar content.

### Instructions for use: (for reference only)

#### I. Standalone Use:

Apply Brassinolide directly to the leaf surface of crops, diluting 1g in 50-100 kilograms of water. It is compatible with acidic fungicides and insecticides for mixed use.

#### II. Compounding with Fertilizers

When compounded with foliage fertilizers, plants exhibit better absorption of nutrients, faster effectiveness, reduced fertilizer burn, balanced nutrition, enhanced fertilizer efficiency, and improved commodity value of fruits. (Reference dosage for 0.15% Brassinolide technical material is 2-8‰, i.e., add 2-8 kilograms per ton of fertilizer).

When compounded with flushing fertilizers or drip irrigation fertilizers, it promotes vigorous root development, thicker and greener leaves, sturdy stems, fruit enlargement, rapid growth, vibrant colors, and earlier marketability. (Reference dosage for 0.15% Brassinolide technical material is 0.5-0.8‰, i.e., add 500-800 grams per ton of fertilizer).

When compounded with base fertilizers, it enhances root absorption and utilization of nutrients, activates root cells' demand for N, P, K, and other nutrients, balances nutrition, and improves root resistance. (Reference dosage for 0.15% Brassinolide technical material is 0.20-0.35‰, i.e., add 200-350 grams per ton of fertilizer).

### III. Compounding with Fungicides (including virucides)

Natural Brassinolide enhances plant immunity, reduces pathogen infection, and increases disease resistance. When compounded with fungicides, it enhances fungicidal activity, enabling significant effects within two days, reduces the harm caused by highly active fungicides such as Tebuconazole and Prochloraz, maintains efficacy for about 20 days, increases efficacy by 30-60%, and reduces fungicide usage by over 10%. (Reference dosage for 0.15% Brassinolide technical material is 0.5-2‰, i.e., add 0.5-2 kilograms per ton of fungicide).

### IV. Compounding with Insecticides

Natural Brassinolide can be compounded with most insecticides, broadening the spectrum of activity, enhancing efficacy, preventing pesticide damage during use, and promoting quick recovery of affected plants through the regulation of natural Brassinolide. (Reference dosage for 0.15% Brassinolide technical material is 0.5-2‰, i.e., add 0.5-2 kilograms per ton of insecticide).

### V. Compounding with Seed Coating Agents

It continues to regulate even at low temperatures, shortening seed dormancy, promoting cell division, inducing rooting and germination, resisting pathogen disturbance, and fostering robust seedlings. (Reference dosage for 0.15% Brassinolide technical material is 0.3-0.8‰, i.e., add 300-800 grams per ton of seed coating agent).

### VI. Compounding or Mixing with Herbicides

Natural Brassinolide enhances crops' metabolism and resistance, preventing and mitigating herbicide damage to crops. (Reference dosage for 0.15% Brassinolide technical material is 1-3‰, i.e., add 1-3 kilograms per ton of herbicide).

### VII. Solo Preparation or Compounding with Other Chemical Regulators into Water-based Solutions, Soluble Powders, or Emulsifiable Concentrates

Natural Brassinolide can be prepared alone into water-based solutions, soluble powders, or emulsifiable concentrates. Common formulations include 0.01% emulsifiable concentrate, 0.01% soluble powder, and 0.0075% water-based solution. Use with other chemical regulators can synergize and enhance effects, reduce the usage of chemical regulators, and improve product efficacy and safety.

**Usage Characteristics:**

1. Applicable throughout various stages of plant growth and development, brassinolide promotes vegetative growth and fertilization.
2. Its physiological effects exhibit some characteristics of auxin, gibberellin, and cytokinin.
3. The roots, stems, and leaves of plants can all effectively absorb brassinolide.
4. Detoxification ability (mitigating herbicide-induced damage).
5. Disease resistance (effective against rice blast, sheath blight, cucumber gray mold, tomato late blight, soft rot of Chinese cabbage and radish, etc.).
6. Mixing brassinolide with fertilizers, fungicides, and insecticides can enhance their overall effectiveness.

**Note**

1. The product information is for reference only. If you have any questions, please call 400-968-6088 for consultation.
2. The products are all for scientific research use only. Do not use it for medical, clinical diagnosis or treatment, food and cosmetics, etc. Do not store them in ordinary residential areas.
3. For your safety and health, please wear laboratory clothes, disposable gloves and masks to operate.