

## Material Safety Data Sheet

### Brassinolide 0.01% SP

#### 1. PRODUCT IDENTIFICATION

Product Name: Brassinolide 0.01% SP  
 Common Name: Brassinolide  
 Chemical Family: Not available  
 Chemical Formula: C<sub>28</sub>H<sub>48</sub>O<sub>6</sub>  
 Chemical Name: (1*R*,3*aS*,3*bS*,6*aS*,8*S*,9*R*,10*aR*,10*bS*,12*aS*)-1-[(1*S*,2*R*,3*R*,4*S*)-2,3-dihydroxy-1,4,5-trimethylhexyl]hexadecahydro-8,9-dihydroxy-10*a*,12*a*-dimethyl-6*H*-benz[*c*]indeno[5,4-*e*]oxepin-6-one.  
 CAS No.: 72962-43-7  
 Product Use: Plant growth regulator

#### 2. COMPANY IDENTIFICATION:

**Exporter:**

CHICO CROP SCIENCE CO., LTD.

Add: Rm 903, Unit C, Tian An International Bldg., Renmin South Rd.,  
 Shenzhen, China.

Tel: 86-755-22969199 Fax: 86-755-25919993

E-mail: chico1@chicocrop.com

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredient Name</u>	<u>CAS Registry Number</u>	<u>Typical Wt. w/w</u>
Brassinolide	72962-43-7	0.01 %
Inert	-	to 100 %

#### 4. HAZARDS IDENTIFICATION

**Emergency Overview**

Grey-white powder

CAUTION!

KEEP OUT OF REACH OF CHILDREN

MAY CAUSE EYE AND SKIN IRRITATION

MAY CAUSE ALLERGIC SKIN REACTION.

#### 5. FIRST AID MEASURES

If swallowed: Do not induce vomiting unless directed by a physician, and seek medical attention immediately.

- If in eye: Flush your eyes with water for 15-20 minutes. Consult a doctor.
- If on skin: Remove contaminated clothing, rinse skin with plenty of water for 15-20 minutes and seek medical attention.
- If Inhaled: Move the patient to a well-ventilated area. If necessary, mouth to mouth breathing can be performed, and immediately seek help from an emergency center or a doctor.

Notes to Physician: There is no specific antidote, Treat symptomatically.

## 6. FIRE FIGHTING MEASURES

### **Fire and explosive Properties**

Auto-Ignition Temperature	Not applicable
Flash Point	Not available

### **Extinguishing Media**

Water mist, foam, chemical powder, carbon dioxide.

### **Fire Fighting Instructions**

If firing, fire fighters and others who may be exposed to products of combustion should wear full firefighting turn out gear and self-contained breathing apparatus. Firefighting equipment should be thoroughly decontaminated after use. Person who may have been exposed to contaminated smoke should be immediately examined by a physician and checked for symptoms of poisoning. The symptoms should not be mistaken for heat exhaustion or smoke inhalation.

## 7. ACCIDENTAL RELEASE MEASURES

### **In Case of Spill or Leak**

Stop the leak, if possible. Ventilated the space involved. Absorb, sweep up, place in container for disposal. Shut off or remove all ignition sources. Prevent waterway contamination. Construct a dike to prevent spreading. Protect works with water spray. Collect run-off water and transfer to drums or tanks for later disposal.

## 8. HANDLING AND STORAGE

### **Handling**

Harmful if swallowed, inhaled, or absorbed through the skin. Causes eye irritation. Do not breathe gas or allow to get in eyes, on skin, or on clothing. Wash hands, arm and face thoroughly with soap and warm water after use and before eating or smoking. Wash all contaminated clothing with soap and hot water before reuse. Do not contaminate feed or food items. Keep out of reach of children.

## **Storage**

Store in a cool dry and air ventilating warehouse and protected from light. Avoid contacting with food, feed stuff and seed.

## 9. EXPOSURE CONTROLS/PERSONAL PROTECTION

### **Eye/Face Protection**

Goggles and full-face shield should be used when needed to prevent liquid from face and getting into the eyes.

### **Skin Protection**

Avoid skin contact. Use chemical-resistant gloves, and wear long sleeves and trousers to prevent dermal exposure.

### **Respiratory Protection**

Under normal handling conditions no respiratory protection is needed. However, if needed to prevent respiratory irritation, either a respirator approved for dusts and mists, or one approved for pesticides.

## 10. PHYSICAL AND CHEMICAL PROPERTIES

Color:	Grey-white
Physical state:	powder
Odor:	Not distinct
Melting point:	274-275 °C
Boiling point:	623.94 °C
pH:	5.0-8.0
Solubility in water	Soluble in water 5mg/l.
Solubility in organic solvents:	Soluble in methanol, alcohol, tetrahydrofuran, acetone and other organic solvents.
Partition coefficient:	Not available

## 11. STABILITY AND REACTIVITY

### **Stability**

Stability in air, water and sunshine. To lead to slowly decompose above 60 degrees centigrade, it is easily decomposed under alkalinity.

### **Hazardous Polymerization**

Does not occur.

### **Incompatibility**

This product is not compatible with alkaline materials and solutions containing chlorine.

### **Hazardous Decomposition Products**

Not available.

## 12. TOXICOLOGICAL INFORMATION

- Acute Oral:** Acute oral LD<sub>50</sub> for rats >2000 mg/kg.  
**Acute Dermal:** Acute percutaneous LD<sub>50</sub> for rats > 2000 mg/kg.  
**Irritation:** Not a skin or eye irritant (rabbits).  
**Sensitization:** Not a skin sensitizer (guinea pigs).  
**Long-term Studies:** Studies showed no evidence of carcinogenicity and mutagenicity to rats and rabbits.

## 13. ECOLOGICAL INFORMATION

Ecotoxicological Information

Brassinolide: It is safe to human, birds and fish.

### **Chemical Fate Information**

No data are available

## 14. DISPOSAL CONSIDERATIONS

### **Waste Disposal**

For the packaging container, completely remove the residual agent from the material in the barrel. Landfill or incineration can be used if local authorities permit. Do not reuse empty containers. The residual liquid should be disposed of in strict accordance with the label requirements.

## 15. TRANSPORT INFORMATION

N/A

## 16. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

## 17. OTHER INFORMATION

The information contained herein relates only to the specific material identified. We believe that such information is accurate and reliable as of the date of this material safety data sheet, but no representation, guarantee or warranty, express or implied, is made as to the reliability or completeness of the information. Urge persons receiving this information to make their own determination as to the information's suitability and completeness for their particular application.

Chico Crop Science Co., Ltd.