

## Material Safety Data Sheet

### Jingangmycin A 9% +Azoxystrobin 3% WP

#### 1. PRODUCT IDENTIFICATION

Product Name: Jingangmycin A 9% +Azoxystrobin 3% WP  
 Common Name: Jingangmycin A +Azoxystrobin  
 Chemical Family: glucopyranosyl antibiotic (Jingangmycin A)  
 methoxyacrylate (Azoxystrobin)  
 Chemical Formula: C<sub>20</sub>H<sub>35</sub>NO<sub>13</sub> (Jingangmycin A)  
 C<sub>22</sub>H<sub>17</sub>N<sub>3</sub>O<sub>5</sub> (Azoxystrobin)  
 Chemical Name: 1L-(1,3,4/2,6)-2,3-dihydroxy-6-hydroxymethyl-4-[(1S,4R,5S,6S)-  
 4,5,6- trihydroxy-3-hydroxymethylcyclohex-2-enylamino]cyclohexyl  
 β-D-glucopyranoside (Jingangmycin A)  
 methyl(E)-2- {2-[6-(2-cyanophenoxy)pyrimidin-4-yloxy]phenyl} -3-  
 methoxyacrylate (Azoxystrobin)  
 CAS No.: 37248-47-8 (Jingangmycin A)  
 131860-33-8 (Azoxystrobin)  
 Product Use: Fungicide

#### 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>
Jingangmycin A	37248-47-8	9%
Azoxystrobin	131860 - 33 - 8	3%
Inert	/	to balance

#### 4. HAZARDS IDENTIFICATION

##### Emergency Overview

Grey loose powder with not distinct odor.



CAUTION!  
KEEP OUT OF REACH OF CHILDREN  
MAY CAUSED SKIN SLIGHT IRRITATION  
MAY CAUSED EYE SLIGHT IRRITATION

### **Potential Health effects**

Dermal contact, ingest and inhalation of the product are the primary routes to induce potential adverse health effects. Inhalation of aerosol during application of the product as part of its end use is another potential route of entry. Eye and skin irritation may occur from contact with the liquid or spray mixture.

## **5. FIRST AID MEASURES**

- If swallowed: Stop taking immediately and send to hospital with pesticide label immediately.
- If in eye: Immediately rinse eyes with a large amount of running water. Hold eyelids apart to rinse the advice of a physician.
- If on skin: Wash with plenty of soap and water, including hair and under fingernails. Do not apply any medicating agents except on the advice of a physician. Remove contaminated clothing and decontaminate prior to use.
- If Inhaled: Move victim from contaminated area to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

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

## **6. FIRE FIGHTING MEASURES**

### **Fire and explosive Properties**

Auto-Ignition Temperature	Not available
Flash Point	Not applicable

### **Extinguishing Media**

Foam, dry powder.

## **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. Ventilate the space involved. Absorb, sweep up, place in container for disposal. Shut off or remove all ignition sources. Prevent waterway contamination.

## **8. HANDLING AND STORAGE**

### **Handling**

Operators should be specially trained and strictly abide by the operating rules. Operation and disposal should be carried out in places with local ventilation or full ventilation facilities. Avoid contact with eyes and skin, and avoid breathing steam. Keep away from fire and heat. No smoking in the workplace. Use explosion-proof ventilation systems and equipment. If filling is needed, the flow rate should be controlled and there should be grounding device to prevent static electricity accumulation. Avoid contact with contraband such as oxidants. Handle with light weight to prevent damage to packaging and containers. Empty containers may retain harmful substances. Wash hands after use and do not eat or drink in the workplace. Equip with the corresponding variety and quantity of fire fighting equipment and leakage emergency treatment equipment.

### **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
Physical state:	Loose powder
Odor:	Not distinct odor
pH:	6.5-9.5
Melting point	125.9 °C (Jingangmycin A); 116 °C; (tech., 114–116 °C) (Azoxystrobin)
Boiling point:	N/A (Jingangmycin A); decomp. 345 °C (Azoxystrobin)
Vapor pressure:	$<2.6 \times 10^{-3}$ mPa (25 °C) (Jingangmycin A); $1.1 \times 10^{-7}$ mPa (20 °C) (Azoxystrobin)
Solubility in water:	In water $>610 \times 10^3$ mg/l (20 °C). (Jingangmycin A); In water 6 mg/l (20 °C). (Azoxystrobin)
Solubility in organic solvents:	In hexane, toluene, dichloromethane and ethyl acetate <0.01, acetone 0.0266, methanol 62.3 (all in g/l, 20 °C). (Jingangmycin A); In hexane 0.057, n-octanol 1.4, methanol 20, toluene 55, acetone 86, ethyl acetate 130, acetonitrile 340, dichloromethane 400 (all in g/l, 20 °C). (Azoxystrobin)
Partition coefficient:	Kow logP= -4.21 (calc.) (Jingangmycin A); Kow logP= 2.5 (20 °C) (Azoxystrobin)

## 11. STABILITY AND REACTIVITY

### Stability

Stable to hydrolysis at pH 5, 7 and 9 (25 °C). (Jingangmycin A);  
DT<sub>50</sub> for aqueous photolysis 2 w. Stable to hydrolysis at pH 5–7 and room temperature.  
(Azoxystrobin)

### Hazardous Polymerization

Does not occur.

### Incompatibility

The product is not compatible with alkaline agents.

### Hazardous Decomposition Products

Not available

## 12. TOXICOLOGICAL INFORMATION

- Acute Oral:** Acute oral LD<sub>50</sub> for rats and mice >20€000 mg/kg. (Jingangmycin A)  
Acute oral LD<sub>50</sub> for male and female rats and mice >5000 mg/kg. (Azoxystrobin)
- Acute Dermal:** Acute percutaneous LD<sub>50</sub> for rats >5000 mg/kg. (Jingangmycin A);  
Acute percutaneous LD<sub>50</sub> for rats >2000 mg/kg. (Azoxystrobin)
- Irritation:** Non-irritant to skin and may be irritant to eyes (rabbits). (Jingangmycin A);  
Slight eye and skin irritation (rabbits). (Azoxystrobin)
- Sensitization:** Not a skin sensitizer (guinea pigs). (Jingangmycin A).  
Not a skin sensitiser (guinea pigs). (Azoxystrobin)
- Long-term Studies:** Non-mutagenic in bacterial reversion assay systems. Non-teratogenic. (Jingangmycin A).  
Not genotoxic, carcinogenic or neurotoxic; azoxystrobin has no effect on fertility parameters nor on foetal or infant development. (Azoxystrobin)

## 13. ECOLOGICAL INFORMATION

### Ecotoxicological Information

#### Jingangmycin A

- Effects on Birds: No effect on chickens or quail at 12.5 g/kg administered orally.
- Effects on Fish: LC<sub>50</sub> (72 h) for carp >40 mg/l.
- Effects on Daphnia: LC<sub>50</sub> (24 h) for *D. pulex* >40 mg/l.
- Effects on Algae: Not available.
- Effects on Bees: Not available.

#### Azoxystrobin

- Effects on Birds: Acute oral LD<sub>50</sub> for mallard ducks and bobwhite quail >2000 mg/kg.  
Dietary LC<sub>50</sub> (5 d) for bobwhite quail and mallard ducks >5200 mg/kg diet.
- Effects on Fish: LC<sub>50</sub> (96 h) for rainbow trout 0.47, bluegill sunfish 1.1, carp 1.6, sheepshead minnows 0.66 mg/l.
- Effects on Daphnia: EC<sub>50</sub> (48 h) 0.28 mg/l.
- Effects on Algae: EC<sub>50</sub> (120 h) for *Selenastrum capricornutum* 0.12 mg/l; EC<sub>50</sub> (72 h) for diatom *Navicula pelliculosa* 0.014 mg/l.
- Effects on Bees: LD<sub>50</sub> for honeybees (oral) >25µg/bee; (contact) >200µg/bee.

### Chemical Fate Information

- Animals: In rats, following oral administration, cleavage to glucose and validoxylamine A occurs. (Jingangmycin A)

In rats, the majority of radiolabel is excreted in the faeces, with little remaining radioactivity in any tissues of the animal. A large number of metabolites was formed, of which only the glucuronide of azoxystrobin acid is present at >10% of the administered dose. In goats and hens, azoxystrobin is also excreted rapidly, with low residues in milk, meat or eggs. For details, see R. S. I. Joseph in Pestic. Chem. & Biosci.. (Azoxystrobin)

Plants: As for animals. (Jingangmycin A)

In wheat, grapes and peanuts, metabolism was extensive, but parent azoxystrobin was the only major (>10%) residue. Metabolism followed similar pathways in all three crops. (Azoxystrobin)

Soil/Environment: Stable in sunlight. Rapid microbial degradation in soil, forming validoxylamine A; DT<sub>50</sub> ≤ 5 h. (Jingangmycin A)

In soil, DT<sub>50</sub> (lab.) 70 d (geometric mean; normalised to 20 °C, pF<sub>2</sub>; SFO kinetics). In soil, in the dark, up to six identified metabolites were formed; over 120 d, up to 27% of applied radiolabel is evolved as CO<sub>2</sub>. Dissipation in the field is faster; DT<sub>50</sub> (geometric mean; SFO) 28 d, DT<sub>90</sub> 94 d (best fit, HS kinetics: DT<sub>50</sub> 13 d, DT<sub>90</sub> 236 d). On soil, photolysis DT<sub>50</sub> 11 d. Azoxystrobin is classified as moderately mobile in soil; average K<sub>oc</sub> for azoxystrobin c. 430. Field dissipation studies showed that neither azoxystrobin nor its major degradates were typically found in soil below the top 15 cm. In water-sediment systems (lab., 20 °C, dark), water phase ave. DT<sub>50</sub> 6.1 d (SFO), total system ave. DT<sub>50</sub> 214 d (SFO). Degradation in atmosphere occurs by reaction with hydroxyl radicals (AOP model), DT<sub>50</sub> 2.7 h. (Azoxystrobin)

## 14. DISPOSAL CONSIDERATIONS

### Waste Disposal

Pesticide wastes are acutely hazardous. Do not reuse product containers. Dispose product containers, waste containers, residues according local health and environmental regulations.

## 15. TRANSPORT INFORMATION

UN Number: Not available(NON-HAZARD GOODS)(Jingangmycin A)  
2811(Azoxystrobin)

Dangerous Goods Class: Not available(NON-HAZARD GOODS)(Jingangmycin A)  
6.1(Azoxystrobin)

Packing Group: Not available(NON-HAZARD GOODS)(Jingangmycin A)  
III(Azoxystrobin)

## 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.