MATERIAL SAFETY DATA SHEET

Forchlorfenuron 0.1%SL

1. PRODUCT IDENTIFICATION

Product Name:	Forchlorfenuron 0.1%SL
Common Name:	Forchlorfenuron
Chemical Formula:	$C_{12}H_{10}ClN_3O$
Chemical Name:	1-(2-chloro-4-pyridyl)-3-phenylurea
CAS No.:	68157–60–8
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

Ingredient Name	CAS Registry Number	Typical Wt. w/w
Forchlorfenuron	68157–60–8	0.1%
Inert	-	to balance

4. HAZARDS IDENTIFICATION

Emergency Overview

Colorless homogeneous clear liquid
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

Add: Rm 903, Unit C, Tian An International Bldg, Renmin South Rd, Shenzhen, China.
Tel: 0086-0755-22969266 22969199 Fax: 0086-0755-25919993 E-mail: chico1@chicocrop.com

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: Rinse mouth with water. Never give anything by mouth to an unconscious person. Should be send to the hospital treatment immediately.

If in eye: Hold eyelids apart. Immediately rinse eyes with a large amount of running water. Go to a doctor.

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. Keep patient calm, apply artificial respiration if necessary. Seek 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 available

Extinguishing Media

Water fog, Carbon Dioxide, Dry Chemical, Foam.

Fire Fighting Instructions

The product is not flammable. But 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

Add: Rm 903, Unit C, Tian An International Bldg, Renmin South Rd, Shenzhen, China.
Tel: 0086-0755-22969266 22969199 Fax: 0086-0755-25919993 E-mail: chico1@chicocrop.com

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 PROPTERTIES

Color:	Colorless
Physical state:	Clear liquid
Odor:	Not distinct odor
PH:	5.0-8.0
Melting point	165–170 °C
Boiling point:	N/A

Add: Rm 903, Unit C, Tian An International Bldg, Renmin South Rd, Shenzhen, China.
Tel: 0086-0755-22969266 22969199 Fax: 0086-0755-25919993 E-mail: chico1@chicocrop.com

Vapor pressure:	4.6×10^{-5} mPa (25 °C, gas saturation)
Solubility in water and solvents:	In water 39 mg/l (pH 6.4, 21 °C). In methanol 119, ethanol 149, acetone 127, chloroform 2.7 (all in g/l).
Partition coefficient:	K_{ow} logP = 3.2 (20 °C)

11. STABILITY AND REACTIVITY

Stability

Stable to heat and light. Not hydrolyzed over 30 d at pH 5, 7 and 9 (25 °C).

Hazardous Polymerization

Does not occur.

Incompatibility

This product is not compatible with strong oxidizing substances.

Hazardous Decomposition Products

No data available.

12. TOXICOLOGICAL INFORMATION

Acute Oral:	Acute oral LD_{50} for male rats 2787, female rats 1568, male mice 2218, female mice 2783 mg/kg.
Acute Dermal:	Acute percutaneous LD_{50} for rabbits >2000 mg/kg.
Irritation:	Mild eye irritant; not a skin irritant.
Sensitization:	Not a skin sensitizer.
Long-term Studies:	(2 y) for rats 7.5 mg/kg b.w. daily; developmental for rabbits ≥100 mg/kg b.w.

13. ECOLOGICAL INFORMATION

Ecotoxicological Information

Effects on Birds:	Acute oral LD_{50} for bobwhite quail >2250 ng/kg. Dietary LC_{50} (5 d) for bobwhite quail >5600 ppm.
Effects on Fish:	LC_{50} (96 h) for rainbow trout 9.2 mg/l; (48 h) for carp 8.6 mg/l, for goldfish 10–40 ppm.
Bees:	LD_{50} (contact) for honeybees >25 μg/bee (*EU Rev. Rep.*).
Daphnia:	LC_{50} (48 h) 8.0 mg/l.
Algae:	E_bC_{50} (72 h) for *Pseudokirchneriella subcapitata* 3.3 mg/l (*EU Rev. Rep.*).

Add: Rm 903, Unit C, Tian An International Bldg, Renmin South Rd, Shenzhen, China.
Tel: 0086-0755-22969266 22969199 Fax: 0086-0755-25919993 E-mail: chico1@chicocrop.com

Chemical Fate Information

Animals: In the rat, forchlorfenuron is rapidly absorbed and metabolised, with half of the radioactivity excreted via the urine and faeces within 16 h. The parent compound was a small component of radioactivity excreted; the majority of the recovered radioactivity was identified as the conjugate, forchlorfenuron sulfate (*EPA Fact Sheet*).

Soil/Environment: Essentially stable to all routes of dissipation except sensitised photodegradation in water. In sandy loam soil in the dark, DT_{50} 578 d (calc.). Also stable in sediment/water systems. Moderately mobile to essentially immobile in soils; Freundlich K_{ads} 2–20 (*EPA Fact Sheet*); K_{oc} 852–3320 (mean 1763, 4 soils); K_d 5.79–39.84 (*EU Rev. Rep.*).

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: 3082

Dangerous Goods Class: 9

Packing Group: III

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.

Add: Rm 903, Unit C, Tian An International Bldg, Renmin South Rd, Shenzhen, China.
Tel: 0086-0755-22969266 22969199 Fax: 0086-0755-25919993 E-mail: chico1@chicocrop.com