

Material Safety Data Sheet

Pretilachlor 14.5% + Pyrazosulfuron-ethyl 1.5% GG

1. PRODUCT IDENTIFICATION/ COMPANY IDENTIFICATION

Common Name: Pretilachlor 14.5% + Pyrazosulfuron-ethyl 1.5% GG

Chemical Family: Pretilachlor + Pyrazosulfuron-ethyl

Chemical name: 2-chloro-2',6'-diethyl-N-(2-propoxyethyl)acetanilide;
3-p-cumenyl-1,1-dimethylurea.(Pretilachlor);

Ethyl5-(4,6-dimethoxypyrimidin-2-ylcarbamoylsulfamoyl)-1-methylpyrazole-4-carboxylate (Pyrazosulfuron-ethyl)

Chemical Formula: C₁₇H₂₆ClNO (Pretilachlor); C₁₄H₁₈N₆O₇S(Pyrazosulfuron-ethyl)

CAS No.: 51218-49-6 (Pretilachlor); 93697-74-6 (Pyrazosulfuron-ethyl)

Product Use: Herbicide

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

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredient Name</u>	<u>CAS Registry Number</u>	<u>Typical Wt. % w/w</u>
Pretilachlor	51218-49-6	14.5%
Pyrazosulfuron-ethyl	93697-74-6	1.5%
Inert ingredient	----	to balance

3. HAZARDS IDENTIFICATION

Emergency Overview

Off-white granule.

CAUTION!

KEEP OUT OF REACH OF CHILDREN

MAY CAUSE EYE AND SKIN IRRITATION

MAY CAUSE ALLERGIC SKIN REACTION.

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. Slight eye and skin irritation may occur from contact with the liquid or spray mixture.

4. FIRST AID MEASURES

- If swallowed: Induce vomiting by touching back of throat with finger and wash stomach. Never give anything by mouth to an unconscious person. Should be send to the hospital treatment immediately.
- If in eye: Immediately rinse eyes for 15min 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. Apply artificial respiration if necessary.

Notes to Physician:

There is no specific antidote if this product is ingested. Treat symptomatically.

5. FIRE FIGHTING MEASURES

Fire and explosive Properties

Auto-Ignition Temperature	Not applicable
Flash Point	Not applicable

Extinguishing Media

Water fog, Carbon Dioxide, Dry Chemical, Foam and halogenated agents.

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 fire fighting turn out gear and self-contained breathing apparatus. Fire fighting 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.

6. 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.

7. 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, arms 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, feedstuff and seed.

8. 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

9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	Off-white
Physical state:	granule
Odor:	Not distinct odor
Melt point:	- 72.6 °C (Pretilachlor); 177.8–179.5 °C (Pyrazosulfuron-ethyl)
Vapor pressure:	6.5×10^{-1} mPa (25 °C) (Pretilachlor) 4.2×10^{-5} mPa (25 °C) (Pyrazosulfuron-ethyl)
Solubility in water	In water 74 mg/l (25 °C). (Pretilachlor) In water 9.76 mg/l (20 °C). (Pyrazosulfuron-ethyl)
Solubility in organic solvents:	Completely miscible with acetone, dichloromethane, ethyl acetate, hexane, methanol, octanol and toluene (25 °C). (Pretilachlor) In methanol 4.32, hexane 0.0185, benzene 15.6, chloroform 200, acetone 33.7 (all in g/l, 20 °C). (Pyrazosulfuron-ethyl)
Partition coefficient:	$K_{ow} \log P = 3.9$ (pH 7.0) (Pretilachlor) $K_{ow} \log P = 3.16$ (hplc method) (Pyrazosulfuron-ethyl)

10. STABILITY AND REACTIVITY

Stability

Relatively stable to hydrolysis; DT50 (calc.) (30 °C) >200 d (pH 1–9), 14 d (pH 13). F.p. 129 °C (Pretilachlor)

Stable at 50 °C for 6 months. Relatively stable at pH 7. Unstable in acidic or alkaline media. pKa 3.7 (Pyrazosulfuron-ethyl)

Incompatibility

Not available.

Hazardous Decomposition Products

Not available

11. TOXICOLOGICAL INFORMATION

Pretilachlor

Acute Oral: Acute oral LD₅₀ for rats 6099, mice 8537, rabbits >10 000 mg/kg.

Acute Dermal: Acute percutaneous LD₅₀ for rats >3100 mg/kg.

Irritation: Non-irritant to skin and eyes (rabbits).

Sensitisation: Not available.

Inhalation: LC₅₀ (4 h) for rats >2853 mg/m³ air

Long-term Studies: (2 y) for rats 30 ppm (1.85 mg/kg b.w. daily), for mice 300 ppm (52.0 mg/kg b.w. daily); (0.5 y) for dogs 300 ppm (12 mg/kg b.w.. daily).

Pyrazosulfuron-ethyl

Acute Oral: Acute oral LD₅₀ for rats and mice >5000 mg/kg.

Acute Dermal: Acute percutaneous LD₅₀ for rats >2000 mg/kg.

Irritation: Non-irritating to skin and eyes (rabbits)..

Sensitisation: Non-sensitising to skin (guinea pigs).

Inhalation: LC₅₀ for rats >3.9 mg/l air.

Long-term Studies: Not available.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information

Pretilachlor

Birds: Non-toxic to birds; LD₅₀ for Japanese quail >2000 mg/kg.

Fish: LC₅₀ (96 h) for rainbow trout 1.6, common carp 1.3 mg/l.

Daphnia: LC₅₀ (48 h) 7.3 mg/l

Algae: EC₅₀ for *Pseudokirchneriella subcapitata* 0.0028 mg/l.

Bees: LD₅₀ (contact) >200 µg/bee.

Worms: LD₅₀ (14 d) 686 mg/kg dry weight..

Pyrazosulfuron-ethyl

Birds: Acute oral LD₅₀ for bobwhite quail >2250 mg/kg.

Fish: LC₅₀ (96 h) for rainbow trout and bluegill sunfish >180 mg/l; (48 h) for carp >30 mg/l.

Daphnia: EC₅₀ (48 h) 700 mg/l

Bees: LD₅₀ (contact) >100 µg/bee.

Environmental fate:

Pretilachlor

Animals Substitution of the chlorine atom for glutathione to form a conjugate. Cleavage of the ether bond to yield an ethyl alcohol derivative. Both metabolites are susceptible to further degradation.

Plants Substitution of the chlorine atom to form a conjugate. Cleavage of the ether bond to yield an ethyl alcohol derivative. Hydrolytic and reductive removal of the chlorine atom.

Soil/Environment Applied to paddy water, pretilachlor disappeared from the water by adsorption to the soil, where it is rapidly degraded under practical conditions, median DT50 (lab.) 30 d. Due to strong soil adsorption, unlikely to leach.

Pyrazosulfuron-ethyl

Animals: In rats, after 48 hours, 80% of applied pyrazosulfuron-ethyl is excreted in urine and faeces. The major metabolic reaction is demethylation of the methoxy group.

Soil/Environment: In soil, DT50 <15 d. In water, DT50 in buffer solution (pH 7), paddy fields or river water c. 28 d.

13. 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.

14. TRANSPORT INFORMATION

UN number

ADR/RID:3077 IMDG: 3077 IATA: 3077

UN proper shipping name

ADR/RID: IMDG: IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
N.O.S. (Pretilachlor) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
N.O.S. (Pyrazosulfuron-ethyl)

Transport hazard class(es)

ADR/RID: 9 IMDG: 9 IATA: 9

Packaging group

ADR/RID: III IMDG: III IATA: III

Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes IATA: yes

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.

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