

## Material Safety Data Sheet

### Nitenpyram 15% + Pymetrozine 45% WDG

#### 1. PRODUCT IDENTIFICATION

Product Name: Nitenpyram 15% + Pymetrozine 45% WDG  
 Common Name: Nitenpyram; Pymetrozine  
 Chemical Family: Neonicotinoid (Nitenpyram);  
 Selective feeding blocker (Pymetrozine)  
 Chemical Formula: C<sub>11</sub>H<sub>15</sub>ClN<sub>4</sub>O<sub>2</sub> (Nitenpyram);  
 C<sub>10</sub>H<sub>11</sub>N<sub>5</sub>O (Pymetrozine);  
 Chemical Name: (*E*)-*N*-(6-chloro-3-pyridylmethyl)-*N*-ethyl-*N'*-methyl-2-nitrovinylidenediamine (Nitenpyram);  
 (*E*)-4,5-dihydro-6-methyl-4-(3-pyridylmethyleamino)-1,2,4-triazin-3(2*H*)-one (Pymetrozine);  
 CAS No.: 120738-89-8 (Nitenpyram);  
 123312-89-0 (Pymetrozine);  
 Product Use: Insecticide

#### 2. COMPANY IDENTIFICATION:

**Exporter:**

CHICO CROP SCIENCE CO., LTD.

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 Shenzhen, China.

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#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredient Name</u>	<u>CAS Registry Number</u>	<u>Typical Wt. % w/w</u>
Nitenpyram	120738-89-8	15%
Pymetrozine	123312-89-0	45%
Inert	-	to 100 %

#### 4. HAZARDS IDENTIFICATION

**Emergency Overview**

White to light yellow particles.

CAUTION!

KEEP OUT OF REACH OF CHILDREN

MAY CAUSE EYE AND SKIN IRRITATION

MAY CAUSE ALLERGIC SKIN REACTION.

#### 5. FIRST AID MEASURES

- If swallowed: If swallowed, rinse mouth with water. Never give anything by mouth to an unconscious person. The patient should be sent to the hospital for symptomatic treatment with this label immediately.
- If in eye: Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.
- If on skin: Remove contaminated clothing immediately and rinse contaminated skin with plenty of water. Rinse with soap and then rinse with water. If the skin is inflamed, consult a doctor.
- If Inhaled: Keep patient calm, remove to fresh air, and seek medical attention.

Notes to Physician: No special antidotes. Treat them according to their symptoms.

## 6. FIRE FIGHTING MEASURES

### Fire and explosive Properties

Auto-Ignition Temperature	Not available
Flash Point	Not applicable

### 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

### 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. 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, ventilated, rain-proof place. Keep container sealed. Keep away from fire and heat. Keep out of the reach of children and unrelated persons and locked. The storage area shall be provided with suitable materials for leakage.

## 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:	White to light yellow
Physical state:	Particles
Odor:	No characteristic odor
pH:	6.0-9.0 (formulation)
Melting point	82.0 °C (Nitenpyram); 217 °C (Pymetrozine)
Boiling point:	N/A (Nitenpyram) N/A(Pymetrozine)
Vapor pressure:	$1.1 \times 10^{-6}$ mPa (20 °C) (Nitenpyram) $<4 \times 10^{-3}$ mPa (25 °C) (OECD 104) (Pymetrozine)
Solubility in water:	In water $>590$ g/l (pH 7.0, 20 °C). (Nitenpyram) In water 0.29 g/l (pH 6.5, 25 °C). (Pymetrozine)
Solubility in organic solvents:	In dichloromethane and methanol $>1000$ , chloroform 700, acetone 290, ethyl acetate 34.7, toluene 10.6, xylene 4.5, hexane 0.00470 (all in g/l, 20 °C). (Nitenpyram) In ethanol 2.4, hexane $<0.001$ , toluene 0.034, dichloromethane 1.2, <i>n</i> -octanol 0.45, acetone 0.94, ethyl acetate 0.26 (all in g/l, 25 °C). (Pymetrozine)
Partition coefficient:	$K_{ow} \log P = -0.66$ (25 °C, unstated pH). (Nitenpyram)

$K_{ow} \log P = -0.18$  (OECD 107) (Pymetrozine)

## 11. STABILITY AND REACTIVITY

### Stability

Stable at 150 °C. Stable to hydrolysis at pH 3, 5 and 7; DT<sub>50</sub> 69 h (pH 9, 25 °C). (Nitenpyram)

Stable in air (OECD 113/DTA). Hydrolysis DT<sub>50</sub> 5–12 d (pH 5); 616–800 d (pH 7); 510–1212 d (pH 9, 25 °C). (Pymetrozine)

### Hazardous Polymerization

Does not occur.

### Incompatibility

This product is not compatible with strong oxidizing agents.

### Hazardous Decomposition Products

Carbon oxides, nitrogen oxides.

## 12. TOXICOLOGICAL INFORMATION

Acute oral LD <sub>50</sub> :	Acute oral LD <sub>50</sub> for male rats 1680, female rats 1575, male mice 867, female mice 1281 mg/kg. (Nitenpyram) Acute oral LD <sub>50</sub> for rats >5000 mg/kg. (Pymetrozine)
Acute dermal LD <sub>50</sub> :	Acute percutaneous LD <sub>50</sub> for rats >2000 mg/kg. (Nitenpyram) Acute percutaneous LD <sub>50</sub> for rats >2000 mg/kg. (Pymetrozine)
Acute inhalation LC <sub>50</sub> :	LC <sub>50</sub> (4 h) for rats >5.8 g/m <sup>3</sup> air. (Nitenpyram) LC <sub>50</sub> (4 h) for rats >1800 mg/m <sup>3</sup> air. (Pymetrozine)
Irritation:	Very slightly irritating to eyes; not irritating to skin (rabbits). (Nitenpyram) Non-irritating to skin and eyes (rabbits). (Pymetrozine)
Sensitization:	Not a skin sensitizer (guinea pigs). (Nitenpyram) Not a skin sensitizer (guinea pigs, M&K). (Pymetrozine)
Long-term Studies:	Not oncogenic (rats, mice). Not teratogenic (rats, rabbits). No effect on reproductive performance (rats). Non-mutagenic (4 tests). (Nitenpyram) Non-mutagenic in 5 assay tests. (Pymetrozine)

## 13. ECOTOXICOLOGICAL INFORMATION

The data is from studies conducted on the technical material.

### Toxicity to bees:

N/A. (Nitenpyram)

LD<sub>50</sub> (48 h) (oral) >117 µg/bee; (contact) >200 µg/bee. (Pymetrozine)

### **Toxicity to fish and other aquatic organisms:**

LC<sub>50</sub> (96 h) for carp >1000 mg/l; (48 h) for rainbow trout >10 mg/l. (Nitenpyram)

LC<sub>50</sub> (96 h) for rainbow trout, sheepshead minnows and common carp >100 mg/l. Other aquatic spp. EC<sub>50</sub> (96 h) for eastern oysters 3.05 ppm. (Pymetrozine)

### **Toxicity to birds:**

Acute oral LD<sub>50</sub> for bobwhite quail >2250, mallard ducks 1124 mg/kg. Dietary LC<sub>50</sub> (5 d) for bobwhite quail and mallard ducks >5620 ppm. (Nitenpyram)

Acute oral LD<sub>50</sub> for mallard ducks >2000 mg/kg. LC<sub>50</sub> (8 d) for bobwhite quail >5200 ppm. (Pymetrozine)

### **Toxicity to earthworms and soil microorganisms:**

Worms LC<sub>50</sub> (14 d) 32.2 mg/kg. (Nitenpyram)

LC<sub>50</sub> (14 d) for *Eisenia foetida* 1098 mg/kg soil. (Pymetrozine)

### **Toxicity to daphnia:**

LC<sub>50</sub> (24 h) >10 000 mg/l. (Nitenpyram)

LC<sub>50</sub> (48 h) 87 mg/l. (Pymetrozine)

### **Toxicity to algae:**

E<sub>b</sub>C<sub>50</sub> (72h) for *Selenastrum capricornutum* 26 mg/l. NOEC (120h) for *S. capricornutum* 6.25 mg/l. (Nitenpyram)

LC<sub>50</sub> (72 h) for *Scenedesmus subspicatus* 47.1 mg/l; (5 d) for *Selenastrum capricornutum* 21.7 mg/l. (Pymetrozine)

## **Chemical Fate Information**

The data is from studies conducted on the technical material.

### **Animals:**

N/A. (Nitenpyram)

Extensively and rapidly absorbed (c. 90% in 24 h). Quickly and efficiently eliminated (mainly via excreta) and extensively metabolised in all species tested (rats, farm animals), without accumulation in most major animal food products. Metabolism is via oxidation of the methyl and triazine methylene, and cleavage between the triazine and pyridine rings. The metabolic pathways are similar for all species. Pymetrozine is the relevant residue for assessing the consumer exposure to treated animal food products. (Pymetrozine)

### **Plants:**

N/A. (Nitenpyram)

The basic degradation steps are similar in all investigated crops; pymetrozine is the only relevant compound for residue definition. (Pymetrozine)

### **Soli/Environment:**

DT<sub>50</sub> in soil 1–15 d, depending on soil type. (Nitenpyram)

In soils, very rapidly and strongly adsorbed; K<sub>f</sub> 3.1–47.7 ml/g, K<sub>oc</sub> 246–7875 ml/g o.c. (10 soils, mean 2245 ml/g o.c.); low mobility and low leaching potential. Soil DT<sub>50</sub> 2–69 d (field, 7 soils, median 14 d), DT<sub>90</sub> 55–288 d (field, 7 soils, median 185 d). Rapidly degraded in slightly acidic or sunlight-exposed surface water; DT<sub>50</sub> in surface water 5.2–6.6 d (lab., darkness, 2 water-sediment systems). Slightly volatile. In air, efficiently removed by direct photolysis and photochemically induced oxidation. (Pymetrozine)

## 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 residue should be disposed of in strict accordance with the label requirements.

## 15. TRANSPORT INFORMATION

UN Number: N/A

Dangerous Goods Class: N/A

Packing Group: 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.