

# MATERIAL SAFETY DATA SHEET

## AMIRE 5% G

### IDENTIFICATION OF THE SUPPLIER:

AGRO CHEMICALS INDUSTRIES LTD  
JORDAN AMMAN  
P.O.Box 183020 Amman 11118 Jordan  
Tel. +962 6 5548224/5  
Fax. +962 6 5548220  
E-mail [info@aci.com.jo](mailto:info@aci.com.jo)

### PRODUCT IDENTIFICATION:

**Common name:** Imidacloprid 5% w/w  
**Product Name:** AMIRE 5% G.  
**Formulation type:** Granules  
**Chemical Name:** 1-(6-chloro-3-pyridinyl) methyl -N- nitro-2-imidazolid inimic.  
**Chemical Formula:** C<sub>9</sub>H<sub>10</sub>ClN<sub>5</sub>O<sub>2</sub>  
**Molecular Weight:** 255.7

### PRODUCT COMPOSITION:

<i>Active Ingredient:</i>	<i>% w/v</i>	<i>CAS #</i>
Imidacloprid	5 %	[138261-41-3]
<i>Inert ingredient:</i>	Up to 100%	--

### HAZARDOUS IDENTIFICATION:

#### Potential Health Effects:

Pioute (s) of Entery: Inhalation; skin contect, skin absorption Eye contact.

**Human Effects and Symptoms of overexposure:** No specific symptoms of acute overexposure are known to occur in humans. It is mildly toxic by the oral and dermal routes; it is not a dermal irritant or dermal sensitizer.

**Chronic Effect of Exposures:** No specific symptoms of chronic overexposure are known to occur in humans.

**Carcinogenicity:** non carcinogenic.



**Medical conditions Aggravated by Exposure:** No specific medical conditions are known which may be aggravated by exposure to this product.

### **FIRST AID MEASURES:**

**Eyes:** hold eyelids open and flush with copious amounts of water for 15 minutes, call a physician if irritation persists or develops after flushing.

**Skin:** Remove contaminated clothing, wash skin with soap and water, get medical attention if irritation persists. If signs of intoxication (poisoning) occur, get medical attention immediately.

**Inhalation:** First, remove victim to fresh air or uncontaminated area if not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention as soon as possible.

**Ingestion:** Drink one or two glass of water and induce vomiting by touching back of throat with finger, if available by administering syrup of ipecac (1 table- spoonful (15ml) of syrup of ipecac followed by 1 to 2 glasses.

### **FIRE FIGHTING MEASURES:**

**Extinguishing Media:** water, carbon dioxide, dry chemical, foam.

**Special Fire fight ion Procedures:** Keep out of smoke, cool exposed containers with water spray flight fire from upwind position. Use self contained breathing equipment. Contain runoff by diking to prevent entry into sewers or waterways. Equipment or materials involved in pesticide fires may become contaminated.

### **ACCIDENTAL RELEASE MEASURES:**

**Spill or Leak Procedures:** Isolate area and keep unauthorized people away. Do not walk through spilled material. Avoid breathing vapors and skin contact.

Remove sources of ignition if combustible or flammable vapors may be present and ventilate area.

Wear proper protective equipment. Dike contaminated area with absorbent granules, soil, sand, etc. If large spill, material should be recovered. Small spills can be absorbed with absorbent granules, spill control pads, or any absorbent material. Carefully sweep up spilled material. Place in covered container for ruse or disposal. Scrub



contaminated area with soap and water. Use dry absorbent material such as clay granules to absorb and collect wash solution for proper disposal. Contaminated soil may be removed and disposed. Do not allow material to enter streams, sewers, or other waterways or contact vegetation.

### **HANDLING AND STORAGE:**

**Store temperature:** 30 days average not to exceed 100 °F.

**Handling and storage precautions:** Store in a cool dry area designated specifically for pesticides. Do not store near any material intended for use or consumption by humans or animals.

### **PERSONAL PROTECTION:**

**Eye protection requirements:** Splash-proof goggles should be used to prevent eye contact.

**Skin protection requirements:** Wear long sleeves and trousers to prevent skin contact.

**Hand protection requirements:** The use chemical resistant gloves (such as nitrile) to prevent skin contact is recommended as good practice.

**Ventilation requirements:** Control exposure levels through the use of general and local exhaust ventilation where needed.

**Respirator requirements:** under normal handling condition, no respiratory protection is needed, however, when potential exposure to this product is excessive; wear a NIOSH- approved respirator for dusts and mists.

**Additional protective measures:** Clean water should be available for washing in case of eye or skin contamination. Educate and train employees in safe use of the product.

### **PHYSICAL AND CHEMICAL PROPERTIES:**

**Physical form:** granules.

**Color:** Blue.

**Odor:** mild.



## STABILITY AND REACTIVITY:

**Stability:** This is a stable material.

**Hazardous polymerization:** Will not occur.

**Incompatibility:** None known.

**Instability conditions:** Strong exothermal reaction above 200°C (for imidacloprid).

**Decomposition products:** Proposed products based on extreme conditions, such as fire, include: HCL. CO, NO<sub>x</sub>.

## TOXICOLOGICAL INFORMATION:

### ACUTE TOXICITY

**Oral LD<sub>50</sub>:** Male Rat: >4870 mg/kg; Female Rat: 4143 mg/kg.

**Dermal LD<sub>50</sub>:** Male and Female Rabbit: >2000 mg/kg.

**Inhalation LC<sub>50</sub>:** 4 Hr. Exposure to Liquid Aerosols: Male and Female Rat: >5.33 mg/L (analytical) --1 Hr Exposure to Liquid Aerosol (extrapolated from 4 Hr LC<sub>50</sub>):

**Male and female:** >20 mg/L (analytical)

**Eye Effects:** Rabbit: only minimal irritation to the conjunctive was observed with all irritation resolving within 72 hours.

**Skin Effects: Rabbit:** Not a dermal irritant.

**Sensitization:** Guinea Pig: Not a dermal sensitizer.

**Subchronic Toxicity:** In a 3 week dermal toxicity study, rabbits were treated with the active ingredient, imidacloprid, at the limit dose level of 1000 mg/kg.

For 6 hours per day, 5 days/week. There were no local or systemic effects observed at any of the levels tested.

The no-observed effect-level (NOEL) was 100 mg/kg. In a 4 week inhalation study, rats were exposed to dust concentrations of imidacloprid at 5.5, 30.5 and 191.2 mg/cubic meter for 6 hours/ day, 5 days/ week. Effects observed at the high concentration included decreased body weight gains, decreased heart and thymus weights, and increased liver weights. And induction of the hepatic mixed-function oxidizes.

Histopathological examinations did not reveal any organ damage or local injury to the respiratory tract. The NOEL was 5.5 mg cubic meter based on induction of the hepatic mixed-function oxidizes.

**CARCINOGENICITY:** Imidacloprid was investigated for carcinogenicity in chronic feeding studies using mice and rats at



maximum levels of 2000 and 1800 ppm, respectively there was no evidence of a carcinogenic potential observed in either species.

**MUTAGENICITY:** The imidacloprid mutagenicity studies, taken collectively, demonstrate that the active ingredient is not genotoxic or mutagenic.

### ECOLOGICAL INFORMATION:

**Bird:** Acute oral LD<sub>50</sub> for Japanese quail 31mg/kg bobwhite quail 152mg/kg.

Dietary LC<sub>50</sub> (5d) for bobwhite quail 2225, mallard duck >5000mg/kg.

**Fish:** LC<sub>50</sub> (96h) for golden fish 237, rainbow trout 211 mg/L.

**Bee:** Harmful to honey-bees by direct contact, but no problems expected when not sprayed into flowering crop or when used as a seed treatment.

**Worms:** LC<sub>50</sub> for *Eisenia fetida* 10.7 mg/kg dry soil.

**Daphnia:** LC<sub>50</sub> (48h) 85 mg/L.

**Algae:** ErC<sub>50</sub> for *Scenedesmus subspicatus* >10 mg/L.

### DISPOSAL CONSIDERATION

END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of the product may be disposed of on site or at an approved waste disposal facility.

#### CONTAINER DISPOSAL:

**Paper Bags:** Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**Plastic Container:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

