



MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT & COMPANY IDENTIFICATION

CROWNBRIDGE MANAGEMENT L.P.
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Canada
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Product Name: DAKOTA
Product Use: Insecticide
Emergency Number: 80004249300

SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS

Common Name: acetamiprid
Chemical Name: (E)-N1-[(6-chloro-3-pyridyl)methyl]-N2-cyano-N1-methylacetamidine (IUPAC)
CAS No.: 135410-20-7; 160430-64-8
Chemical family: neonicotinoid
Molecular formula: C₁₀H₁₁ClN₄
Use: A water soluble powder, systemic insecticide with contact and stomach action for the control of pests as indicated on citrus, cotton and wheat.
Formulation: acetamiprid: 200 g/kg; Soluble Powder
Hazardous ingredients of toxicological concern:

<u>Inert:</u>	<u>concern:</u>	<u>% present:</u>
acetamiprid:	harmful,	± 20 %
lactose filler	irritant	± 45 %
sodium citrate filler	mild irritant	± 30 %
wetting agent	mild irritant	± 4.5 %

Symbol: Xn, Xi
Indication of Danger: Harmful, Irritant
RISK-PHRASE(S) R20/22, R36/37/38

SECTION 3 - HAZARD IDENTIFICATION

Inhalation:

Harmful by inhalation. May cause irritation of the nose, throat and lungs.

Ingestion:

Harmful if swallowed. Over exposure to the product may cause irritation, nausea, vomiting, diarrhea, headache, confusion, liver effects, lethargy, muscle tremors and convulsions.

Skin Contact:

May cause mild to moderate skin irritation due to inerts.

Eye Contact:

May cause mild to moderate skin irritation due to inerts.

Other Effects:

Acetamiprid has been classified as an 'unlikely' human carcinogen. Acetamiprid has relatively low acute and chronic toxicity in mammals. There was no evidence of carcinogenicity, neurotoxicity, mutagenicity and/or endocrine disruption.

SECTION 4 - FIRST AID MEASURES AND PRECAUTIONS

Inhalation:

Immediately remove source of contamination or move victim to fresh air. If breathing has stopped, perform artificial respiration and administer oxygen. Do not give mouth-to-mouth resuscitation if victim ingested or inhaled the substance. Keep person warm and at rest. Treat symptomatically and supportively as and when required. Call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. Notes to physicians: There is no specific antidote. All treatment should be based on observed signs and symptoms of distress in the patient.



Skin contact:

Remove contaminated clothing, shoes and leather goods immediately. Gently wipe off excess chemical. Wash skin gently and thoroughly with non-abrasive soap or mild detergent and large amounts of water until no evidence of chemical remains (approximately 15 to 20 minutes). Seek medical advice if irritation develops and persists.

Eye contact:

Immediately flush the eyes with gently flowing lukewarm water or sodium bicarbonate solution for 20 to 30 minutes, occasionally lifting the upper and lower lids. If irritation persists, seek medical advice immediately.

Ingestion:

Do not induce vomiting. Never induce vomiting or give anything to drink to an unconscious person. If the person is alert, rinse mouth thoroughly with water and give one or two glasses of water to drink. Treat symptomatically and supportively. Call a physician or Poison Control Center.

Advice on treatment:

No specific antidote available. Treat symptomatically and supportively.

SECTION 5 - FIRE-FIGHTING MEASURES

Flash point: NOT FLAMMABLE

Extinguishing agents:

Extinguish fires with carbon dioxide, dry powder, or alcohol-resistant foam. Water spray as a fog can be used for cooling of unaffected stock, but avoid water coming in contact with the product. Contain water used for fire-fighting for later disposal.

Avoid the accumulation of polluted run-off from the site.

Fire fighting:

Remove spectators from surrounding area. Remove container from fire area if possible without risk. Eliminate all ignition sources in immediate area. Fight fire from maximum distance. For massive fire, use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal. Use a recommended extinguishing agent for the type of surrounding fire. Avoid inhaling hazardous vapours. Keep upwind.

This product will emit toxic fumes when burned, including fumes of SO₄. May produce irritating or poisonous mists or other products of combustion.

Personal protective equipment:

Fire-fighters and others that may be exposed should wear full protective impervious clothing, including gloves and eye protection, and self-contained breathing apparatus. Contact with the fumes and vapours should be avoided by staying upwind.

Clean all clothing before re-use. Severely contaminated clothing cannot be adequately decontaminated, and must be disposed as a hazardous waste. Shower with soap and water after contact with this product.

SECTION 6 - ACCIDENTAL RELEASE MEASURES (SPILLAGE)

Personal precautions:

Avoid contact with skin and eyes. Do not inhale spray or fumes. For personal protection see Section 8.

Environmental precautions:

Do not allow entering drains or watercourses. Spillage or uncontrolled discharges into water courses (or public waters) to be reported immediately to the Police and to the Department of Water/Environmental Affairs.

Occupational spill:

For small liquid spills, soak up with lime, damp earth or sand, or other non-combustible absorbent material and place into containers for later disposal. For large liquid spills, contain the liquid for later disposal. In situations where product comes in contact with water, contain contaminated water for later disposal. Do not flush spilled material into drains. Keep spectators away.

SECTION 7 - HANDLING AND STORAGE REQUIREMENTS

Handling:

Harmful if swallowed. Mild irritant to eyes and skin. Avoid contact with eyes and skin, and inhalation of dust, spray and vapour. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking, or using the toilet. Remove clothing immediately if the product gets inside. Then wash skin thoroughly using a non-abrasive soap and put on clean clothing.

Do not apply directly to areas where surface water is present, or to intertidal areas below the mean high water mark. Water used to clean equipment must be disposed of correctly to avoid contamination.

Storage:



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Keep out of reach of unauthorized persons, children and animals. Store in its original labelled container in shaded, well-ventilated area. Store in dry area.

SECTION 8 - EXPOSURE CONTROL/PERSONAL PROTECTION

Comply with occupational safety, environmental, fire, and other applicable regulations.

PERSONAL PROTECTIVE EQUIPMENT:

Respirator:

Where exposure through inhalation may occur when handling and/or when preparing the spray mixture, wear a face mask. If the product is used in dusty or confined conditions or spillage and fire conditions a respirator suitable for protection from dusts and mists of pesticides is adequate.

Clothing:

Employee must wear appropriate protective (impervious) clothing, boots, hat and equipment to prevent repeated or prolonged skin contact with this substance. Do not wear leather clothing.

Gloves:

Employee must wear appropriate chemical resistant protective gloves to prevent contact with this substance.

Eye protection:

The use of safety goggles (full-face shield) is recommended.

Emergency eye wash: Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Light blue powder with no visual extraneous matter.
Odour:	Mild chemical odour.
Flammability:	Not flammable.
Flash point:	Not applicable.
Density:	0.5 - 0.55 g/ml
pH:	6 to 8
Solubility:	Completely soluble in water.
Wettability:	max 60 sec.

SECTION 10 - STABILITY AND REACTIVITY

Storage Stability:

The product is stable for 2 years when stored at room temperature in normal warehouse conditions in original packaging.

Stability:

Keep the product in a cool, dry place at below 30 °C. Protect from sunlight, open flame and sources of heat. Avoid contact with oxidizing agents, strong acids and bases. Not corrosive.

Incompatibility: Incompatible with hydroxylamine, magnesium and sodium hypobromite.

Decomposition products:

Fire may produce irritating or toxic fumes such as oxides of carbon, and nitrogen, hydrogen chloride and other mists or other products of combustion.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute Effects Eyes: Acetamiprid technical is a non-irritant. Formulation may cause mild to moderate irritation due to inerts. **Skin:** Acetamiprid technical is a non-irritant. Formulation may cause mild to moderate irritation due to inerts **Dermal sensitization:** Not expected to be a skin sensitizer. Individuals may develop an allergic response.

Ingestion: Moderately toxic by ingestion. Symptoms may include diarrhoea and stomach pain.

Oral LD₅₀ rats:

Acetamiprid technical: In water male: 417 & female 314 mg/kg
And male: 217 & female 146

mg/kg Formulation calculated: 1065 mg/kg (730-

2085 mg/kg) **Dermal LD₅₀ rats:**

Acetamiprid technical: >2000

mg/kg Formulation calculated:
>2000



Acetamiprid technical: >0.29
mg/l Formulation calculated:

Harmful

Mutagenicity: No evidence of mutagenicity. Negative in the Ames test.
Teratogenicity: No teratogenicity or fetotoxicity was observed at the tested doses.
Carcinogenicity: No carcinogenic potential. Acetamiprid is classified as an 'unlikely' human carcinogen.
Endocrine disruption: No evidence of endocrine disruption.
ADI: 0.07 mg/kg

SECTION 12 - ECOLOGICAL INFORMATION

Mobility, Degradability & Accumulation:

Acetamiprid is a mobile, rapidly biodegradable compound in most soils. Half-lives range from <1 day to 8,2 days in all studies. No major issues for soil mobility since low use rate and rapid degradation reduce the amount for offsite movement. The major degradate; methyl(6- chloro-3-pyridyl)methyl amine, was more persistent than the parent acetamiprid. However, the degradate was found to be of low significance. Acetamiprid is moderately to highly mobile in tested soils with Kd values of less than 4,1 ml/g and Koc values in the range of 132 to 267 ml/g. Acetamiprid is stable to hydrolysis at environmental temperatures, and photo-degrades relatively slowly in water, which makes it more persistent in water, half-life is 34 days at pH 7 at 25 OC. Environmental residues in drinking water are predicted to be low. Acetamiprid is relatively non persistent and though it is mobile, rapid degradation will reduce its potential to leach to groundwater. It is not expected to bind strongly to aquatic sediments. The degradation products have the potential to leach to groundwater. However, such contamination will not be of toxicological significance. Approximately > 90% of acetamiprid administered to rats, is metabolised.

ECOTOXICOLOGY:

Birds: Low acute risk to birds.

Oral LD₅₀: Bobwhite quail: 180
mg/kg Mallard ducks:
98 mg/kg

Fish: Low acute risk to fish.

LC₅₀ (24 - 96 hours): carp: > 100 mg/l

Acetamiprid will not bioaccumulate in fish and in sediment.

Daphnia: Low acute risk.

EC₅₀ (48 hours): *Daphnia magna*: 49,8 mg/l

LC₅₀ (24 hours):> 200 mg/l

Bees: Toxic to bees.

LD₅₀: contact: 8,1 Ng/bee
oral: 14,5
Ng/bee

Algae:

EC₅₀ (72 hours): *Scenedesmus subspicatus* > 98,3 mg/l

Earthworms: LC₅₀ at day 14: 9

mg/kg Product may be harmful to
aquatic organisms.

SECTION 13 - DISPOSAL CONSIDERATION

Pesticide and container disposal:

Open dumping or burning of this pesticide is prohibited. Never pour untreated waste or surplus products into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers.

Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is destroyed. TRIPLE RINSE empty containers in the following manner. Invert the empty container over the spray or mixing tank and allow to drain for at least 30 seconds after the flow has slowed down to a drip. Thereafter rinse the container three times with a volume of water equal to a minimum of 10 % of that of the container. Add the rinsings to the contents of the spray tank before destroying the container in the prescribed manner.

Do not re-use the empty container for any other purpose. Destroy it by perforation and flattening and bury in an approved dump site. Prevent contamination of food, feedstuffs, drinking water and eating utensils.

SECTION 14 - TRANSPORT INFORMATION



UN No.: NOT REGULATED
Road Transport ADR/IRD: NOT REGULATED
Maritime Transport IMDG/IMO: NOT REGULATED

SECTION 15 - REGULATORY INFORMATION

Symbol : Xn, Xi,

Indication of danger: Harmful, Irritant

Risk phrase(s):

R 20/22 Harmful by inhalation and if swallowed.

R 36/37/38 Irritating to eyes, respiratory system and skin.

Safety phrases:

S 1/2 Keep out of reach children.

S 13 Keep away from food, drink and animal feeding stuffs.

S 22 Do not breathe dust.

S 24/25 Avoid contact with skin and eyes.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

SECTION 16 - OTHER INFORMATION

Packaging:

Packed in 500 g, 1 kg, 2 kg, 5 kg, 10 kg, 20 kg and 25 kg foil bags or paper bags or plastic containers and shipper paper boxes and labelled according to South African regulations and guidelines.

Disclaimer:

The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions or recommendations are not followed.

All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.