MATERIAL SAFETY DATA SHEET

eChem (Australia) Pty Ltd
419 Frome Street, Moree NSW 2400
Phone: 02 6750 8019
Fax. 02 6752 3123
A.C.N. 089 133 095

Issued: June 2013

Emergency Contact: 1800 033 111

SECTION 1  IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: eChem Acetamiprid 225 SC Insecticide

Full Product Name: eChem Acetamiprid 225 SC Insecticide.
Other Names: Acetamiprid. Group 4A Insecticide.
Use: A liquid agricultural Insecticide.
Company: eChem (Australia) Pty Ltd
Address: 419 Frome Street, Moree NSW 2400
ACN/ABN: 089 133 095
Telephone Number: 02 6750 8019
Fax Number: 02 6752 3123
Emergency Contact: 1800 033 111

SECTION 2  HAZARDS IDENTIFICATION

Classified as hazardous according to criteria of Safe Work Australia.
Not classified as a Dangerous Good according to the ADG Code.
Combustible Liquid (C1).

Risk Phrases: R22 Harmful if swallowed.
R36 Irritating to eyes.
R37 Irritating to respiratory system.
R38 Irritating to skin.
R61 May cause harm to the unborn child.

Safety Phrases: S2 Keep out of reach of children.
S13 Keep away from food, drink and animal feeding stuffs.
S23 Do not breathe vapour or spray.
S24/25 Avoid contact with skin and eyes.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

SECTION 3  COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

<table>
<thead>
<tr>
<th>CHEMICAL</th>
<th>CAS NUMBER</th>
<th>PROPORTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetamiprid</td>
<td>135410-20-7</td>
<td>225 g/L</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>67-68-5</td>
<td>515 g/L</td>
</tr>
<tr>
<td>N-Methyl-Pyrrolidone</td>
<td>872-50-4</td>
<td>334 g/L</td>
</tr>
<tr>
<td>Other ingredients determined not to be classified as hazardous</td>
<td>Balance</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 4  FIRST AID MEASURES

FIRST AID
Ingestion: If swallowed do NOT induce vomiting. Give a glass of water. Rinse mouth thoroughly with water. If poisoning occurs, contact a Doctor or Poisons Information Centre. Phone 131 126.
SECTION 4 | FIRST AID MEASURES (Continued)

Eye contact: Immediately hold eyes open and flood with clean water until chemical is removed. Ensure irrigation under eyelids by occasionally lifting them. Do not try to remove contact lenses unless trained. If irritation persists, seek medical advice.

Skin contact: Remove contaminated clothing. Wash skin with soap and water. If skin is irritated, seek medical advice. Wash contaminated clothing before re-use.

Inhalation: Remove to fresh air and observe until recovered. If effects persist, seek medical advice. Over-exposure by inhalation is unlikely.

Advice to Doctor: Treat symptomatically.

SECTION 5 | FIRE FIGHTING MEASURES

Specific Hazard: Flash point ~ 102°C. Combustible liquid (C1). Product will decompose when burnt and will emit toxic fumes. Eruption of containers is likely if confined at high temperatures. Intact containers exposed to excessive heat should be cooled with water to reduce drum pressure.

Extinguishing media: CO₂, alcohol-resistant foam or dry chemical. Soft stream water fog or fine water spray if no alternatives. Contain all runoff.

Hazards from combustion products: Product will decompose when burnt and will emit nitrogen and sulphur oxides, carbon monoxide and other toxic fumes. Firefighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or smoke.

Precautions for fire-fighters and special protective equipment: Isolate fire area. Evacuate downwind residents. Wear full protective clothing and self contained breathing apparatus. Do not breathe smoke or vapours generated.

SECTION 6 | ACCIDENTAL RELEASE MEASURES

Emergence procedures / Material and methods for containment and cleanup procedures:

Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), butyl rubber gloves and face shield or goggles.

In the case of spillage, stop leak if safe to do so, and contain spill. Absorb spilled material with absorbent material such as sand, clay or cat litter and dispose of waste as indicated below or according to the Australian Standard 2507 - Storage and Handling of Pesticides. Wear prescribed protective clothing and equipment. Keep out animals and unprotected persons.

After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Thoroughly launder protective clothing before storage or re-use.

SECTION 7 | HANDLING AND STORAGE

Precautions for Safe Handling: No smoking, eating or drinking should be allowed where material is used or stored. Not for Therapeutic use. Poisonous if swallowed. Will irritate the eyes. Avoid contact with eyes and skin. Avoid breathing vapour or spray mist. When opening the container, preparing the spray, and using the prepared spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), butyl rubber gloves and face shield or goggles. When using the prepared spray wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) butyl rubber gloves and face shield or goggles. If product in eyes, wash it out immediately with water. Wash hands after use. After each day’s use wash gloves and face shield or goggles and contaminated clothing.

Conditions for Safe Storage: Not classified as a Dangerous Good by the ADG. This product is a Schedule 6 Poison (S6) and must be stored, transported and sold in accordance with the relevant Health Department regulations. Store in the closed, original container in a well ventilated area away from children, animals, food, feedstuffs, seed and fertilisers. Do not store for prolonged periods in direct sunlight. This product is classified as a C1 (Combustible Liquid) for the purpose of storage and handling, in accordance with the requirements of AS 1940.
SECTION 8 | EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines:
Exposure guidelines have not been established for this product by Safe Work Australia, however the following guideline has been established for one of the ingredients in this product:

<table>
<thead>
<tr>
<th>Atmospheric Contaminant</th>
<th>Exposure Standard (TWA)</th>
<th>STEL (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-Methyl-Pyrrolidone (Skin*)</td>
<td>1.3 mg/m³ (25 ppm)</td>
<td>309 mg/m³ (75 ppm)</td>
</tr>
</tbody>
</table>

TWA = Time-weight Average  STEL = Short Term Exposure Level

* The ‘skin’ notation refers to the potential for dermal absorption of the material including mucous membranes and the eyes by contact with vapours or direct skin contact.

Biological Limit Values:
No biological limit allocated.

Engineering controls:
Keep containers closed when not in use. Use in a well ventilated area. Ensure that the work environment remains clean and that vapours and mists are minimised.

Personal Protective equipment (PPE):
General: When opening the container, preparing the spray, and using the prepared spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), butyl rubber gloves and face shield or goggles. When using the prepared spray wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) butyl rubber gloves and face shield or goggles. If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use wash gloves and face shield or goggles and contaminated clothing.

After Use: Wash hands after use. After each day's use, wash gloves and contaminated clothing. Shower at the end of each work day.

SECTION 9 | PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Pale yellow transparent liquid.
Odour: Odourless.
Boiling point: No data available.
Freezing point: No data available.
Specific Gravity: Approximately 1.1 at 20°C.
Solubility in Water: Soluble.
Flash Point: ~ 102°C (Combustible liquid (C1)).
Vapour pressure: No data available.
Corrosive hazard: Not corrosive.
Oxidizing properties: Not an oxidiser.
Poison Schedule: This is a schedule 6 (S6) poison.
Formulation type: Soluble Concentrate (SL).

SECTION 10 | STABILITY AND REACTIVITY

Chemical Stability: Product is considered stable in ambient conditions for a period of at least 2 years after manufacture.

Conditions to avoid: Do not store for prolonged periods in direct sunlight.

Incompatible materials: Oxidizing agents, organic peroxide, strong acids or bases.

Hazardous decomposition products: On combustion likely toxic and noxious fumes include oxides of nitrogen and sulphur, carbon monoxide, hydrochloric acid and other organic compounds.

Hazardous reactions: Polymerisation is unlikely. May react with strong oxidizing agents (such as chlorates, nitrates, peroxides etc) and organic peroxide.
SECTION 11  TOXICOLOGICAL INFORMATION

No specific data is available for this product as no toxicity tests have been conducted on this product. Information presented is our best judgement based on similar products and/or individual components. As with all products for which limited data is available, caution must be exercised through the use of protective equipment and handling procedures to minimise exposure.

Potential Health Effects:

ACUTE EFFECTS

Swallowed:  Acute oral LD\textsubscript{50} (rat) 580 mg/kg (similar formulation), harmful if swallowed.

Eye:  This product is irritating to the eyes.

Skin:  This product is irritating to the skin but is not a sensitiser. Low acute dermal toxicity. Acute dermal LD\textsubscript{50} (rabbit) > 2000 mg/kg (similar formulation).

Inhaled:  May irritate the mucous membranes of the respiratory tract. Low acute inhalation toxicity. LC\textsubscript{50}(rat) = 6.54 mg/L/ 4 hr (similar formulation).

Long Term Exposure:  

Chronic toxicity:

In laboratory tests, no evidence was obtained of teratogenic, carcinogenic or reproductive effects for Acetamiprid. In mammals, acetamiprid caused generalized, nonspecific toxicity and did not appear to have specific target organ toxicity. Acetamiprid has relatively low acute and chronic toxicity in mammals and there was no evidence of carcinogenicity, neurotoxicity, mutagenicity and/or endocrine disruption. Safe Work Australia has classified N-Methyl-Pyrrolidone in the occupational environment as a developmental toxin. Possible risk of harm to the unborn child.

SECTION 12  ECOLOGICAL INFORMATION

Environmental Toxicology:  Low toxicity to fish and aquatic invertebrates. Carp 96 hr LC\textsubscript{50} = 386 mg/L. Invertebrates Daphnia magna 48 hr EC\textsubscript{50} = 577 mg/L; algae 72 hr EC\textsubscript{50} = 560 mg/L. Low toxicity to bees and earthworms.

Environmental Fate:  This product is biodegradable and not expected to bio-accumulate. Soil DT\textsubscript{50} = 15 - 31 days for total residues. Acetamiprid is a mobile, rapidly biodegradable compound in most soils. Water DT\textsubscript{50} = 66 days and in water sediment DT\textsubscript{50} = 120 days.

SECTION 13  DISPOSAL CONSIDERATIONS

Spills and Disposal:  Persons involved in cleanup require adequate skin protection - see section 8. Keep material out of streams and sewers. Dispose of drummed wastes, including decontamination solution in accordance with the requirements of Local or State Waste Management Authorities. In rural areas contact ChemClear http://www.chemclear.com.au for help with collection of unwanted rural chemicals. In case of spillage, contain and absorb spilled material with absorbent material such as clay, sand or cat litter and dispose of waste as indicated above or in accordance to the Australian Standard 2507- Storage and Handling of Pesticides. Keep out animals and unprotected persons. Keep material out of streams and sewers.

Disposal of empty containers:  Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on-site. If recycling, replace cap and return clean containers to recycler or designated collection point. If an approved waste management facility is not available bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. DO NOT burn empty containers or product.

drumMUSTER is the national program for the collection and recycling of empty, cleaned, non returnable crop production and on-farm animal health chemical containers. If the label on your container carries the drumMuster symbol, triple rinse the container, ring your local Council, and offer the container for collection in the program.
SECTION 14 | TRANSPORT INFORMATION

Road & Rail Transport: This product is not classified as a Dangerous Goods under the Australian Code for the Transport of Dangerous Goods by Road and Rail. This product is a Schedule 6 Poison (S6) and must be stored, transported and sold in accordance with the relevant Health Department regulations.

Marine and Air Transport: Product is not classified as a Dangerous Good according to International Maritime Dangerous Goods (IMDG) Code and the International Air Transport Association (IATA).

SECTION 15 | REGULATORY INFORMATION

Under the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP), this product is a schedule 6 poison.
This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 67783.
This product is classified as a Hazardous Substance under the criteria of Safe Work Australia. T: Toxic, Xn: Harmful and Xi: Irritant.
This product is not classified as a Dangerous Good according to the ADG Code (7th Ed).
This product is not classified as a Dangerous Good according to International Maritime Dangerous Goods (IMDG) Code and the International Air Transport Association (IATA).

Requirements concerning special training:
Check State or Territory regulations that require people who use pesticides in their job or business to have training in the application of the materials.

SECTION 16 | OTHER INFORMATION

Issue Date: 13 June 2013. Valid for 5 years. (Correcting typographical errors).

Key to abbreviations and acronyms used in this MSDS:
ADG Code: Australian Dangerous Goods Code (for the transport of dangerous goods by Road and Rail).
Carcinogen: An agent which is responsible for the formation of a cancer.
Genotoxic: Capable of causing damage to genetic material, such as DNA.
PPE: Personal protective equipment.
Teratogen: An agent capable of causing abnormalities in a developing foetus.
STEL: Short Term Exposure Limits.
TWA: The Time Weighted Average airborne concentration over an eight-hour working day, for a five day working week over an entire working life.
Safe Work Australia: Formally known as Australian Safety & Compensation Council (ASCC) which was formally known as the National Occupational Health & Safety Commission (NOHSC)).

References

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

End MSDS