

# MATERIAL SAFETY DATA SHEET



**eChem (Australia) Pty Ltd**  
Level 4, Lantos Place  
80 Stamford Road, Indooroopilly QLD 4068  
Ph: 1300 781 649 Fax: 1300 781 650  
A.C.N. 089 133 095

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**Emergency Contact:**  
**1800 033 111**

## SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name: eChem Amitraz 200 EC/ULV**

**Full Product Name:** eChem Amitraz 200 EC/ULV Insecticide / Miticide  
**Other Names:** Amitraz. *N*-methylbis(2,4-xylilyliminomethyl)amine.  
**Use:** A liquid insecticide for the control of heliothis in cotton.  
**Company:** eChem (Australia) Pty Ltd  
**Address:** Level 4, Lantos Place 80 Stamford Road, Indooroopilly QLD 4068  
**ACN/ABN:** 089 133 095  
**Telephone Number:** 07 4696 1054 **Fax Number:** 07 4696 1057  
**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:** R43 May cause sensitisation by skin contact.  
R48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.  
R65 Harmful: may cause lung damage if swallowed.

**Safety Phrases:** S2 Keep out of reach of children.  
S13 Keep away from food, drink and other animal foodstuffs.  
S23 Do not breath 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

<b>Ingredients:</b>	<b>CAS NUMBER</b>	<b>PROPORTION</b>
<b>CHEMICAL</b>		
Amitraz	33089-61-1	200 g/L
Liquid hydrocarbon	64742-94-5	> 60 % w/w
Other ingredients determined not to be hazardous		1 - 10%

## SECTION 4 FIRST AID MEASURES

### FIRST AID

**Ingestion:** If swallowed do NOT induce vomiting. Give a glass of water. If poisoning occurs, contact a Doctor or Poisons Information Centre. Phone 131 126.

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

#### **SECTION 4 FIRST AID MEASURES (Continued)**

**Skin contact:** Remove contaminated clothing. Wash skin with soap and water until chemical is removed. If skin is irritated, seek medical advice.

**Inhalation:** Remove to fresh air and observe until recovered. If effects persist, seek medical advice.

**Advice to Doctor:** Treat symptomatically. The formulation also contains petroleum distillate that can cause severe pneumonitis or fatal pulmonary oedema if aspirated. Consideration should be given to gastric lavage with an endotracheal tube in place. Treatment is otherwise symptomatic and supportive.

#### **SECTION 5 FIRE FIGHTING MEASURES**

**Specific Hazard:** Combustible liquid (C1) – flash point > 62°C. Eruption of containers is likely if confined at high temperatures. Cool intact containers with water to reduce drum pressure.

**Extinguishing media:** Extinguish fire using carbon dioxide, foam or dry agent. If not available, use waterfog or fine water spray but ensure all runoff is contained.

**Hazards from combustion products:** On burning will emit toxic fumes. Firefighters to wear self-contained breathing apparatus and suitable protective clothing if risk to 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 ACCIDENTIAL RELEASE MEASURES**

**Emergence procedures / Material and methods for containment and cleanup procedures:** Wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow length PVC gloves and face shield. Clear area of all unprotected personnel. Wear full protective clothing and equipment including chemical resistant gloves. Prevent spill from spreading or entering waterways, sewers or underground drains. Absorb spill with absorbent material such as sand clay or cat litter. Place material into an approved drum. To decontaminate spill area, tools and equipment wash with a suitable solution (eg organic solvent, detergent, bleach or caustic) and add the solution to the drums of waste already collected. Dispose of drummed waste and decontamination solution in accordance with the requirements of Local Authorities or State Waste Management Authorities. Do not cut or weld metal containers.

#### **SECTION 7 HANDLING AND STORAGE**

**Precautions for Safe Handling:** No smoking, eating or drinking should be allowed where material is used or stored. When opening the container, preparing the spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield. Wash hands after use.

**Conditions for Safe Storage:** Not classified as a Dangerous Good. This product is a Schedule 6 Poison (S6) and must be stored, transported and sold in accordance with the relevant Health Department regulations. This product is a combustible liquid (C1) and must be stored away from naked lights, heat sources and oxidising agents. Observe procedures detailed in Australian Standard AS1940-1988 for flammable and combustible liquids.

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.

#### **SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Exposure Guidelines:**

No exposure limits have been assigned by safe Work Australia to the ingredient in this product.

**Biological Limit Values:**

No biological limit allocated.

## **SECTION 8 | EXPOSURE CONTROLS / PERSONAL PROTECTION (Continued)**

### **Engineering controls:**

Use in ventilated areas. Keep containers closed when not in use. No special engineering controls are required.

### **Personal Protective equipment (PPE):**

Skin: When opening the container, preparing the spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat and elbow-length PVC gloves and face shield. Wash thoroughly before smoking, eating or using toilet facilities. Wash hands after use.

Respiratory Protection: Generally not required. Use of a respirator may be required in certain circumstances to protect from inhalation of spray mist.

## **SECTION 9 | PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	Yellowish liquid / Petroleum odor.
<b>Odour:</b>	Petroleum type odour.
<b>Boiling point:</b>	No data available.
<b>Freezing point:</b>	No data available.
<b>Specific Gravity:</b>	1.0 at 20°C.
<b>Solubility in Water:</b>	Emulsifies in water - emulsifiable concentrate formulation.
<b>pH:</b>	No data available.
<b>Flammability:</b>	Combustible liquid.
<b>Corrosive hazard:</b>	Not corrosive.
<b>Flashpoint (°C):</b>	> 62°C and < 150°C.
<b>Flammability Limits (%):</b>	Not established. Combustible liquid (C1).
<b>Poisons Schedule:</b>	This product is a schedule 6 (S6) poison.

## **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:** Avoid alkaline materials.

**Incompatible materials:** None known.

**Hazardous decomposition products:** Hazardous decomposition products include hydrogen cyanide, carbon monoxide and nitrogen oxides.

**Hazardous reactions:** No particular reactions to avoid.

## **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:** Swallowing can cause nausea, vomiting and central nervous system depression caused by the solvent in this product. If patient shows sign of central nervous system depression (like those of drunkenness) there is a greater chance of the patient breathing in vomit and causing damage to the lungs. Breathing in vomit may lead to aspiration pneumonia (inflammation of the lung).

**Eye:** This product may be irritating to the eyes.

**Skin:** This product may be irritating to the skin. Product will have a degreasing action on the skin. Repeated or prolonged exposure may lead to irritant contact dermatitis.

**Inhaled:** Inhalation of mists or sprays may produce respiratory irritation. Breathing in vapours may result in headaches, dizziness and possible nausea. Breathing high concentrations can produce central nervous system depression, which can lead to loss of coordination, impaired judgement, and in circumstances of prolonged exposure, unconsciousness.

## SECTION 11 TOXICOLOGICAL INFORMATION (Continued)

Toxicological data (active ingredient only):

**Amitraz:** Acute oral LD<sub>50</sub> (rat) = 600-800 mg/kg. Acute Skin irritation – Non irritating.  
Acute Dermal LD<sub>50</sub> (rabbit) > 1600 mg/kg. Acute eye irritation – Mild eye irritant.  
Acute inhalation LC<sub>50</sub> (rat) > 65 mg/L/6 hours. Acute skin sensitization – not a sensitizer.

### Long Term Exposure:

In studies in laboratory animals, amitraz the active ingredient, when fed to rats and mice in long term feeding studies led to fertility effects, including increased oestrus cycles and decreased fertility. However, likely human exposures are very much less than those which produced effects. These effects are unlikely in humans under normal circumstances.

*Mutagenic Effects:* A variety of tests indicate that amitraz is not mutagenic and does not cause damage to DNA.

*Carcinogenic Effects:* Long term feeding studies show that amitraz is not carcinogenic in rats. However, it can cause tumors in female mice. Amitraz caused an increase in tumors of the lungs and lymph nodes in female mice, but not males, at 57 mg/kg/day over 20 months. A two-year study of female mice also showed an increase in tumors of the liver (hepatocellular tumors) at 57 mg/kg/day amitraz. Because amitraz causes cancer in female mice, but not male mice or male or female rats, it is unclassifiable as to human carcinogenicity.

*Organ Toxicity:* At high doses, amitraz can reduce the function of the hypothalamus, which helps regulate the metabolism by controlling hormone release in the body.

*Fate in Humans and Animals:* Available data suggest that amitraz, following absorption into the blood, is not readily absorbed into tissues, and is mostly excreted unchanged via the urine).

## SECTION 12 ECOLOGICAL INFORMATION

**Environmental Toxicology:** No data is available on this product. The active ingredient, amitraz, is slightly toxic to birds. The dietary LC<sub>50</sub> (8 day) = 7,000 mg/kg (mallard duck) and 1,800 mg/kg (Japanese quail). The oral LD<sub>50</sub> = 788 mg/kg (bobwhite quail). Amitraz may affect reproduction in birds; avian reproduction NOEL is less than 40 mg/kg. Amitraz is moderately toxic to fish. The LC<sub>50</sub> (96-hour exposure) = 1.3 mg/L (bluegill sunfish) and 3.2-4.2 mg/L (harlequin fish). The LC<sub>50</sub> (48-hour exposure) = 2.7-4.0 mg/L (rainbow trout). Daphnia exhibited toxic effects at 35 ppb of amitraz in water. Amitraz is relatively non-toxic to bees. The LD<sub>50</sub> = 12 µg per bee by ingestion and 3.6 mg/L by direct spraying. However the breakdown products can be more toxic than the parent molecule especially to birds.

Can be toxic to livestock, avoid direct contact with livestock or grazing of treated pastures.

**Environmental Fate:** Amitraz is rapidly broken down in soil containing oxygen. The half-life in soil is less than one day. Degradation occurs more rapidly in acidic soils than in alkaline or neutral soils.

## 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. 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 not recycling, break, crush, or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

Do not cut or weld metal containers. Vapours that form inside may create an explosion hazard.

## SECTION 14 TRANSPORT INFORMATION

**Road & Rail Transport:** This product is exempt from classification as a Dangerous Good in packs less than 3,000 kg or litres under the Australian Code for the Transport of Dangerous Goods by Road and Rail. For bulk shipments this product is a class 9, UN 3082. (See special provision AU01).

**Marine and Air Transport:** Product is a Marine Pollutant according to International Maritime Dangerous Goods (IMDG) Code and the International Air Transport Association (IATA). If transporting by sea or air the following Dangerous Goods Classification applies:-  
UN 3082, Class 9 (Miscellaneous Dangerous Goods), Packing Group III, Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains 20% Amitraz). Hazchem code ●3Z. Hazard Identification Number (HIN) 90. EPG: Standards Australia Guide Number 47.

## SECTION 15 REGULATORY INFORMATION

Under the Standard for Uniform Scheduling of Drugs and Poisons (SUSDP), this product is a schedule 6 poison.

This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 56004.

This product is classified as a Hazardous Substance under the criteria of Safe Work Australia. T: Toxic, Xn: Harmful, Xi: irritant.

This product is not classified as a Dangerous Good according to the ADG Code (7<sup>th</sup> Ed).

This product is classified as a Dangerous Good according to International Maritime Dangerous Goods (IMDG) Code and the International Air Transport Association (IATA).

## SECTION 16 OTHER INFORMATION

Issue Date: 20 March 2013. Valid for 5 years. (Updating address details).

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).

Ataxia: Inability to control the coordinate movements of the muscles.

Carcinogen: An agent which is responsible for the formation of a cancer.

Genotoxic: Capable of causing damage to genetic material, such as DNA.

NOHSC: National Occupational Health and Safety Commission.

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

1. "Search Hazardous Substances". HSIS Safe Work Australia website. (2013).
2. "Approved Criteria for Classifying Hazardous Substances" 3<sup>rd</sup> Ed. NOHSC Australia. [NOHSC:1008 (2004)]. October 2004.

*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