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# Section 1 - Identification of The Material and Supplier

Issued by: Intervet Australia Pty Limited

(trading as MSD Animal Health)

91-105 Harpin Street Tel: 1 800 033 461 (Business hours)
Bendigo East, Vic 3550, AUSTRALIA Fax: 1 800 817 414

Company ABN: 79 008 467 034

**Chemical nature:** Amitraz is an amidine derivative; presented in a hydrocarbon solvent.

Trade Name: Coopers AMITIK EC Cattle and Pig Spray

**Recommended Use:** Animal insecticide for use as described on the product label.

APVMA No: 45044 Creation Date: July, 2009

This version issued: October, 2016 and is valid for 5 years from this date. Poisons Information Centre: Phone 13 1126 from anywhere in Australia

#### Section 2 - Hazards Identification

#### **Statement of Hazardous Nature:**

**This product is classified as:** Xi, Irritating. T, Toxic. N, Dangerous to the environment. Hazardous according to the criteria of SWA.

Not a Dangerous Good according to Australian Dangerous Goods (ADG) Code, IATA and IMDG/IMSBC criteria. However, this is a C1 Combustible Liquid so must be stored and handled as specified in AS 1940 "The storage and handling of flammable and combustible liquids."

**SUSMP Classification: S6** 

ADG Classification: None allocated. Not a Dangerous Good under the ADG Code.

UN Number: None allocated







# **GHS Signal word: WARNING**

Acute Toxicity Oral Category 5

Skin Sensitisation Category 1

Specific Target Organ toxicity - repeated exposure Category 2 Hazardous to aquatic environment Short term/Chronic Category 2

#### **HAZARD STATEMENT:**

H303: May be harmful if swallowed.

H317: May cause an allergic skin reaction.

H373: May cause damage to organs through prolonged or repeated exposure.

H411: Toxic to aquatic life with long lasting effects.

#### **PREVENTION**

P102: Keep out of reach of children.

P260: Do not breathe fumes, mists, vapours or spray.

P261: Avoid breathing fumes, mists, vapours or spray.

P262: Do not get in eyes, on skin, or on clothing.

P272: Contaminated work clothing should not be allowed out of the workplace.



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P273: Avoid release to the environment.

P280: Wear protective gloves, protective clothing and eye or face protection.

#### **RESPONSE**

P314: Get medical advice or attention if you feel unwell.

P363: Wash contaminated clothing before reuse.

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P333+P313: If skin irritation or rash occurs: Get medical advice.

P370+P378: In case of fire, use carbon dioxide, dry chemical, foam, water fog.

#### **STORAGE**

P410: Protect from sunlight.

P402+P404: Store in a dry place. Store in a closed container.

P403+P235: Store in a well-ventilated place. Keep cool.

#### DISPOSAL

P501: Dispose of contents and containers as specified on the registered label.

## **Emergency Overview**

Physical Description & Colour: Clear, pale yellow liquid.

Odour: Characteristic odour.

**Major Health Hazards:** Signs of acute Amitraz poisoning in male and female rats treated with 440 mg/kg and 365 mg/kg respectively, include coolness to touch, reduced spontaneous activity, episodes of increased induced activity such as aggression in response to handling, and signs of general debilitation. Possible skin sensitiser.

### Section 3 - Composition/Information on Ingredients

Ingredients	CAS No	Conc,%	TWA (mg/m³)	STEL (mg/m³)
Amitraz	33089-61-1	125g/L	not set	not set
Liquid hydrocarbon	secret	600g/L	not set	not set
Other non hazardous ingredients	secret	to 100	not set	not set

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak "is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

#### Section 4 - First Aid Measures

#### General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 11 26 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

**Inhalation:** No first aid measures normally required. However, if inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice.

**Skin Contact:** Wash gently and thoroughly with water (use non-abrasive soap if necessary) for 5 minutes or until chemical is removed.

**Eye Contact:** No effects expected. If irritation does occur, flush contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes. Take special care if exposed person is wearing contact lenses.

**Ingestion:** If product is swallowed or gets in mouth, do NOT induce vomiting; wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or a doctor.



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# **Section 5 - Fire Fighting Measures**

**Fire and Explosion Hazards:** This product is classified as a C1 combustible product. There is a slight risk of an explosion from this product if commercial quantities are involved in a fire. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids.

Fire decomposition products from this product are likely to be toxic if inhaled. Take appropriate protective measures.

**Extinguishing Media:** Suitable extinguishing media are carbon dioxide, dry chemical, foam, water fog.

**Fire Fighting**: If a significant quantity of this product is involved in a fire, call the fire brigade.

Flash point: Combustible liquid not meeting the AS 1940 definition of a Flammable Liquid.

Flash point: 97°C
Upper Flammability Limit: No data.
Lower Flammability Limit: No data.
Autoignition temperature: No data.

Flammability Class: Not flammable (GHS); C1 combustible (AS 1940)

#### Section 6 - Accidental Release Measures

**Accidental release:** In the event of a major spill, prevent spillage from entering drains or water courses. Wear full protective clothing including eye/face protection. All skin areas should be covered. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a respirator. Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned below (section 8). Otherwise, not normally necessary.

Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. Refer to product label for specific instructions. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this SDS and the label, instructions on the label prevail. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or reuse. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

# **Section 7 - Handling and Storage**

**Handling:** Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

**Storage**: This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Some liquid preparations settle or separate on standing and may require stirring before use. Check packaging - there may be further storage instructions on the label.

### **Section 8 - Exposure Controls and Personal Protection**

The following Australian Standards will provide general advice regarding safety clothing and equipment:



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Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

SWA Exposure Limits TWA (mg/m³) STEL (mg/m³)

Exposure limits have not been established by SWA for any of the significant ingredients in this product.

The ADI for Amitraz is set at 0.002mg/kg/day. The corresponding NOEL is set at 0.25mg/kg/day. ADI means Acceptable Daily Intake; NOEL means No-observable-effect-level. Taken from Australian ADI List, June 2014.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

**Ventilation:** This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

**Eye Protection:** Eye protection such as protective glasses or goggles is recommended when this product is being used

**Skin Protection:** If you believe you may have a sensitisation to this product or any of its declared ingredients, you should prevent skin contact by wearing impervious gloves, clothes and, preferably, apron. Make sure that all skin areas are covered. See below for suitable material types.

**Protective Material Types:** We suggest that protective clothing be made from the following materials: rubber, PVC. **Respirator:** Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above. Otherwise, not normally necessary. Safety deluge showers should, if practical, be provided near to where this product is being used.

## **Section 9 - Physical and Chemical Properties**

**Physical Description & Colour**: Clear, pale yellow liquid. **Odour:** Characteristic odour.

**Boiling Point:** Not available.

**Freezing/Melting Point:** No specific data. Liquid at normal temperatures.

Volatiles: No data. **Vapour Pressure:** No data. Vapour Density: No data. **Specific Gravity:** 0.952 at 15°C Water Solubility: Emulsifiable. pH: No data. Volatility: No data. **Odour Threshold:** No data. **Evaporation Rate:** No data. Coeff Oil/water Distribution: No data Autoignition temp: No data.

### Section 10 - Stability and Reactivity

**Reactivity:** This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

**Conditions to Avoid:** Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

**Incompatibilities:** strong acids, strong bases, strong oxidising agents.

**Fire Decomposition:** Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. Water. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.



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**Polymerisation:** This product will not undergo polymerisation reactions.

## **Section 11 - Toxicological Information**

**Toxicity:** Acute **Toxicity:** Amitraz is harmful to mammals if ingested orally. The oral  $LD_{50}$  is 523-800 mg/kg for Amitraz in rats. The oral  $LD_{50}$  is greater than 1,600 mg/kg for mice. Dermal exposure results in an  $LD_{50}$  of greater than 1,600 mg/kg for rats and greater than 200 mg/kg for rabbits. The inhalation  $LC_{50}$  (6 hours) of Amitraz for rats is 65 mg/l of air. Amitraz is not a skin irritant and does not sensitize skin. Signs of acute Amitraz poisoning in male and female rats treated with 440 mg/kg and 365 mg/kg respectively, include coolness to touch, reduced spontaneous activity, episodes of increased induced activity such as aggression in response to handling, and signs of general debilitation. Amitraz also may produce a slowly reversible emaciation in survivors.

**Chronic Toxicity:** In two-year feeding trials, rats who received 50 mg/kg/day in their diet and dogs who received 0.25 mg/kg/day of Amitraz did not show any ill-effects.

**Reproductive Effects:** Rats who received 12 mg/kg/day of Amitraz from day one of pregnancy until the young were weaned at 21 days old had a reduced number of young born and alive at day four. Rabbits who received 25 mg/kg/day of Amitraz from days 6 to 18 of pregnancy had fewer and smaller litters. Although there have been reproductive effects observed in laboratory animals at some dose levels, likely human exposures are very much less than those which produced effects. These effects are unlikely in humans under normal circumstances.

**Teratogenic Effects:** In one study, rats treated with 12 mg/kg/day of Amitraz from days 8 to 20 of pregnancy, the offspring were heavier but had less bone development than the offspring of untreated rats. However, an EPA study indicates that the highest dose at which Amitraz has no observable effect on test rats' offspring (teratogenic NOEL) is 12 mg/kg/day. The teratogenic NOEL of rabbits is 25 mg/kg/day. These studies indicate that high doses of Amitraz exposure during pregnancy produced adverse effects in laboratory animals. Likely human exposures are very much less than those which produced effects, and 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 causes 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 of 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. A daily dose of 200 mg of Amitraz per kilogram of body weight for ten weeks causes decreased growth and food consumption.

**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). Amitraz is Classed by SWA as a potential sensitiser by skin contact.

### **Classification of Hazardous Ingredients**

Ingredient

Amitraz

Risk Phrases

>=1%Conc<10%: Xi; R43

- Acute toxicity category 4
- Specific target organ toxicity (repeated exposure) category 2
- Skin sensitisation category 1
- Hazardous to the aquatic environment (acute) category 1
- Hazardous to the aquatic environment (chronic) category 1

#### **Potential Health Effects**

Persons sensitised to Amitraz should avoid contact with this product. Inhalation:



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**Short Term Exposure:** Available data indicates that this product is not harmful. However product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.

**Long Term Exposure:** No data for health effects associated with long term inhalation.

#### **Skin Contact:**

**Short Term Exposure:** Classified as a potential sensitiser by skin contact. Exposure to a skin sensitiser, once sensitisation has occurred, may manifest itself as skin rash or inflammation, and in some individuals this reaction can be severe. In addition product may be irritating, but is unlikely to cause anything more than mild transient discomfort.

**Long Term Exposure:** No data for health effects associated with long term skin exposure.

### **Eye Contact:**

**Short Term Exposure**: Available data shows that this product is not harmful. This product may be irritating to eyes, but is unlikely to cause anything more than mild transient discomfort.

**Long Term Exposure**: No data for health effects associated with long term eye exposure.

### Ingestion:

**Short Term Exposure**: Significant oral exposure is considered to be unlikely. However, this product may be irritating to mucous membranes but is unlikely to cause anything more than transient discomfort.

**Long Term Exposure**: No data for health effects associated with long term ingestion.

### Carcinogen Status:

**SWA:** No significant ingredient is classified as carcinogenic by SWA. **NTP:** No significant ingredient is classified as carcinogenic by NTP. **IARC:** No significant ingredient is classified as carcinogenic by IARC.

## **Section 12 - Ecological Information**

Toxic to aquatic organisms, may cause long-term adverse effects to the aquatic environment.

**Effects on Birds:** Amitraz is not toxic to birds. The dietary  $LC_{50}$  (8 day) is 7,000 mg/kg for mallard ducks and 1,800 mg/kg for Japanese quail. The oral  $LD_{50}$  for bobwhite quail is 788 mg/kg. Amitraz may affect reproduction in birds. The avian reproduction NOEL is less than 40 ppm.

**Effects on Aquatic Organisms:** Amitraz is moderately toxic to fish. The  $LC_{50}$  (96-hour exposure) is 1.3 mg/l for bluegill sunfish and 3.2-4.2 mg/l for harlequin fish. For a 48-hour exposure of rainbow trout, a cold water species, the  $LC_{50}$  is 2.7-4.0 mg/l. Daphnia, a fresh water invertebrate, exhibited toxic effects at 35 ppb of Amitraz in water.

Effects on Other Animals (Nontarget species): Amitraz is relatively non-toxic to bees. The LD<sub>50</sub> is 12  $\mu$ g per bee by ingestion and 3.6 mg/l by direct spraying.

#### **ENVIRONMENTAL FATE**

Breakdown of Chemical in Soil: Amitraz is broken down rapidly in soil containing oxygen. The half-life in soil, the amount of time needed for the chemical to degrade to half its original concentration, is less than one day. Degradation occurs more rapidly in acidic soils than in alkaline or neutral soils.

Breakdown of Chemical in Vegetation: Reports indicate that Amitraz may cause crop injury to young peppers and pears during high temperature conditions.

## **Section 13 - Disposal Considerations**

**Disposal**: Special help is available for the disposal of Agricultural Chemicals. The product label will give general advice regarding disposal of small quantities, and how to cleanse containers. However, for help with the collection of unwanted rural chemicals, contact ChemClear 1800 008 182 http://www.chemclear.com.au/ and for help with the disposal of empty drums, contact DrumMuster http://www.drummuster.com.au/ where you will find contact details for your area.

# **Section 14 - Transport Information**

**UN Number:** This product is not classified as a Dangerous Good by ADG, IATA or IMDG/IMSBC criteria. No special transport conditions are necessary unless required by other regulations.



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# **Section 15 - Regulatory Information**

**AICS:** All of the significant ingredients in this formulation are compliant with NICNAS regulations. The following ingredient: Amitraz, is mentioned in the SUSMP.

#### **Section 16 - Other Information**

This SDS contains only safety-related information. For other data see product literature.

### **Acronyms:**

**ADG Code** Australian Code for the Transport of Dangerous Goods by Road and Rail (7<sup>th</sup> edition)

AICS

SWA

Australian Inventory of Chemical Substances

Safe Work Australia, formerly ASCC and NOHSC

CAS number

Chemical Abstracts Service Registry Number

**Hazchem Code** Emergency action code of numbers and letters that provide information to emergency

services especially firefighters

IARC International Agency for Research on Cancer

NOS Not otherwise specified

NTP National Toxicology Program (USA)

R-Phrase Risk Phrase

SUSMP Standard for the Uniform Scheduling of Medicines & Poisons

UN Number United Nations Number

THIS SDS 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 MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS

OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (Feb 2016)