

Section 1 - Identification of The Material and Supplier

Issued by: Intervet Australia Pty Limited
(trading as MSD Animal Health)
91-105 Harpin Street
Bendigo East, Vic 3550, AUSTRALIA
Company ABN: 79 008 467 034

Tel: 1 800 033 461 (Business hours)
Fax: 1 800 817 414

Chemical nature: Range of spot-on insecticides for cats and dogs containing fluralaner. The active ingredient, FLURALANER synonym Carbamoyl Benzamide Phenyl Isoxazoline (CBPI); belongs to a novel anti-parasitic class of Isoxazoline-substituted benzamide derivatives. The finished product (trade name, BRAVECTO®) are for animal treatment only.

Trade Name: **Bravecto Spot-On Solution for Dogs and Cats**

APVMA Code: 82794 (BRAVECTO 1000 mg Fluralaner Spot-on Solution for Large Dogs)
82795 (BRAVECTO 1400 mg Fluralaner Spot-on Solution for Very Large Dogs)
82796 (BRAVECTO 500 mg Fluralaner Spot-on Solution for Medium Dogs)
82797 (BRAVECTO 250 mg Fluralaner Spot-on Solution for Small Dogs)
82798 (BRAVECTO 112.5 mg Fluralaner Spot-on Solution for Very Small Dogs)
82804 (BRAVECTO 500 mg Fluralaner Spot-on Solution for Large Cats)
82806 (BRAVECTO 250 mg Fluralaner Spot-on Solution for Medium Cats)
82807 (BRAVECTO 112.50 mg Fluralaner Spot-on Solution for Small Cats)

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

Creation Date: July, 2018

This version issued: July, 2018 and is valid for 5 years from this date.

Poisons Information Centre: Phone 13 11 26 from anywhere in Australia

Section 2 - Hazards Identification

Statement of Hazardous Nature:

This product is classified as: T, Toxic. F, Flammable. Hazardous according to the criteria of SWA. Dangerous according to Australian Dangerous Goods (ADG) Code, IATA and IMDG/IMSBC criteria.

SUSMP Classification: S6

ADG Classification: Class 3: Flammable liquids.

UN Number: 1090, ACETONE



GHS Signal word: DANGER

Flammable liquids Category 2
Acute Toxicity Dermal Category 4
Acute Toxicity Inhalation Category 4
Reproductive Toxicity Category 1

HAZARD STATEMENT:

H225: Highly flammable liquid and vapour.
H312: Harmful in contact with skin.
H332: Harmful if inhaled.
H360: May damage fertility or the unborn child.

PREVENTION

SAFETY DATA SHEET

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P210: Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P233: Keep container tightly closed.
P241: Use explosion-proof electrical ventilating, lighting and other equipment.
P261: Avoid breathing fumes, mists, vapours or spray.
P262: Do not get in eyes, on skin, or on clothing.
P264: Wash contacted areas thoroughly after handling.
P271: Use only outdoors or in a well ventilated area.
P280: Wear protective gloves, protective clothing and eye or face protection.

RESPONSE

P312: Call a POISON CENTRE or doctor 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.
P303+P361+P353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P308+P313: If exposed or concerned: Get medical advice.
P381: Eliminate all ignition sources if safe to do so.
P370+P378: In case of fire, use carbon dioxide, dry chemical, foam. Alcohol resistant foam is the preferred firefighting medium but, if it is not available, fine water spray can be used.

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: Yellow liquid

Odour: Solvent odour.

Major Health Hazards: may cause harm to unborn children, harmful by inhalation and in contact with skin.

Section 3 - Composition/Information on Ingredients

Ingredients	CAS No	Conc, mg/mL	TWA (mg/m ³)	STEL (mg/m ³)
Fluralaner	864731-61-3	280	not set	not set
Dimethyl acetamide	127-19-5	339	36	not set
Diethyltoluamide	134-62-3	100-200	not set	not set
Acetone	67-64-1	100-200	1185	2375
Other non hazardous ingredients	secret	to 1 mL	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.

SAFETY DATA SHEET

Inhalation: If symptoms of poisoning become evident, contact a Poisons Information Centre, or call a doctor at once. Remove source of contamination or move victim to fresh air. If breathing is difficult, oxygen may be beneficial if administered by trained personnel, preferably on a doctor's advice. DO NOT allow victim to move about unnecessarily. Symptoms of pulmonary oedema can be delayed up to 48 hours after exposure.

Skin Contact: Wash gently and thoroughly with warm water (use non-abrasive soap if necessary) for 10-20 minutes or until product is removed. Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands and belts) and completely decontaminate them before reuse or discard.

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.

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is a moderate risk of an explosion from this product if commercial quantities are involved in a fire. Firefighters should take care and appropriate precautions. Any explosion will likely spread the fire to surrounding materials. Water spray may be used to cool drums involved in a fire, reducing the chances of an explosion. Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

Extinguishing Media: In case of fire, use carbon dioxide, dry chemical, foam. Alcohol resistant foam is the preferred firefighting medium but, if it is not available, fine water spray can be used. Try to contain spills, minimise spillage entering drains or water courses.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade. There is a danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is full fire kit and breathing apparatus.

Flash point: 2°C

Upper Flammability Limit: No data.

Lower Flammability Limit: 2.7%

Autoignition temperature: 355°C

Flammability Class: Flammable Category 2 (GHS); Highly Flammable (AS1940).

Section 6 - Accidental Release Measures

Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. 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 butyl rubber, Teflon, PE/EVAL, Responder. Eye/face protective equipment should comprise as a minimum, protective glasses and, preferably, 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).

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. Avoid using sawdust or other combustible material. Any electrical equipment should be non-sparking. Any equipment capable of building an electrostatic charge should be electrically grounded. 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 re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

SAFETY DATA SHEET

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. Store in a cool, well ventilated area, and make sure that surrounding electrical devices and switches are suitable. Check containers periodically for leaks. Containers should be kept closed in order to minimise contamination and possible evaporation. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. If you keep more than 2500kg or L of Dangerous Goods of Packaging Group II, you may be required to license the premises or notify your Dangerous Goods authority. If you have any doubts, we suggest you contact your Dangerous Goods authority in order to clarify your obligations. 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:

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/m ³)	STEL (mg/m ³)
Dimethyl acetamide	36	not set
Acetone	1185	2375

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: 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: butyl rubber, Teflon, PE/EVAL, Responder.

Respirator: Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

Safety deluge showers should, if practical, be provided near to where this product is being handled commercially.

Section 9 - Physical and Chemical Properties

Physical Description & Colour:	Yellow liquid
Odour:	Solvent odour.
Boiling Point:	Approx 103°C at 100kPa
Freezing/Melting Point:	No specific data. Liquid at normal temperatures.
Volatiles:	No data.
Vapour Pressure:	No data.
Vapour Density:	No data.
Specific Gravity:	No data.
Water Solubility:	Negligible.
pH:	No data.
Volatility:	No data.

SAFETY DATA SHEET

Odour Threshold:	No data.
Evaporation Rate:	No data.
Coeff Oil/water Distribution:	No data
Autoignition temp:	355°C

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: This product should be kept in a cool place, preferably below 30°C. Keep away from sources of sparks or ignition. Handle and open containers carefully. Any electrical equipment in the area of this product should be flame proofed. Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

Incompatibilities: oxidising agents.

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

Polymerisation: This product will not undergo polymerisation reactions.

Section 11 - Toxicological Information

Local Effects:

Target Organs: There is no data to hand indicating any particular target organs.
Dimethyl Acetamide is a SWA Class 2 Reproductive risk, may cause harm to the unborn child.

Classification of Hazardous Ingredients

Ingredient	Risk Phrases
Dimethyl Acetamide	Conc>=25%: T; R61; R20/21; R48/20/21
<ul style="list-style-type: none">Acute toxicity – category 4Specific target organ toxicity (repeated exposure) – category 2Reproductive toxicity – category 1B	
Diethyltoluamide	No risk phrases at concentrations found in this product
<ul style="list-style-type: none">Acute toxicity – category 4Eye irritation – category 2Skin irritation – category 2Hazardous to the aquatic environment (chronic) – category 3	
Acetone	No risk phrases at concentrations found in this product
<ul style="list-style-type: none">Flammable liquid – category 2Eye irritation – category 2ASpecific target organ toxicity (single exposure) – category 3	

Potential Health Effects

Inhalation:

Short Term Exposure: Available data shows that this product is harmful, but symptoms are not available. In addition product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.

Long Term Exposure: Believed to be cumulative by inhalation route.

SAFETY DATA SHEET

Skin Contact:

Short Term Exposure: Available data shows that this product is harmful, but symptoms are not available. In addition product may be irritating, but is unlikely to cause anything more than mild transient discomfort.

Long Term Exposure: Believed to be cumulative by dermal exposure.

Eye Contact:

Short Term Exposure: 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. Available data shows that this product is not harmful. 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

Insufficient data to be sure of status.

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

Dangerous according to Australian Dangerous Goods (ADG) Code, IATA and IMDG/IMSBC criteria.

UN Number: 1090, ACETONE

Hazchem Code: +2YE

Special Provisions: None allocated

Limited quantities: ADG 7 specifies a Limited Quantity value of 1 L for this class of product.

Dangerous Goods Class: Class 3: Flammable liquids.

Packing Group: II

Packing Instruction: P001, IBC02

Class 3 Flammable Liquids shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 2.1 (Flammable Gases where flammable liquids and flammable gases are both in bulk), 2.3 (Toxic Gases), 4.2 (Spontaneously Combustible Substances), 5.1 (Oxidising Agents), 5.2 (Organic Peroxides), 6 (Toxic Substances, except Flammable Liquid is nitromethane), and 7 (Radioactive Substances). They may however be loaded in the same vehicle or packed in the same freight container with Classes 2.1 (Flammable Gases except where the Flammable Liquids and Flammable Gases are in bulk), 2.2 (Non-Flammable Non-Toxic Gases), 4.1 (Flammable Solids), 4.3 (Dangerous When Wet Substances), 6 (Toxic Substances, where Flammable Liquid is nitromethane), 8 (Corrosive Substances), 9 (Miscellaneous Dangerous Goods), Foodstuffs or foodstuff empties.

Section 15 - Regulatory Information

SAFETY DATA SHEET

AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations.
The following ingredients: Dimethyl acetamide, Acetone, are 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 th edition)
AICS	Australian Inventory of Chemical Substances
SWA	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)
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)

SAFETY DATA SHEET