



## SAFETY DATA SHEET

A18234/01/AUS

## SERESTO COLLARS FOR DOGS AND CATS

## SECTION 1 – IDENTIFICATION, CONTACTS

Bayer Australia Ltd  
875 Pacific Highway  
Pymble NSW 2073

**Emergency Telephone Number**

1800 033 111

24 hour Emergency Service Australia Wide, Toll Free

**Contact Point (for non-emergency calls)**

Animal Health Division

**Telephone Number:** (02) 9391-6000

Product Name

**Advantage Seresto for Dogs and Puppies up to 8 kg  
Fleas & Ticks Collar**

**Advantage Seresto for Dogs over 8 kg Fleas & Ticks  
Collar**

**Advantage Seresto for Kittens and Cats Fleas Collar**

Product Use

Insecticidal collar for flea and tick control for dogs, and flea control for cats.

Other Names

Flumethrin, Imidacloprid.

Creation Date

5 January 2016

Revision Date

New SDS

**SECTION 2 – HAZARD IDENTIFICATION**

<b>GHS-Classification</b>	Hazardous to the aquatic environment, Category 1 (H400) Hazardous to the aquatic environment, Category 1 (H410)
<b>Signal Word</b>	Warning
<b>Hazard statement</b>	H410 Very toxic to aquatic life with long lasting effects.
<b>Precautionary statements</b>	<b>Prevention:</b> P273 Avoid release to the environment. <b>Response:</b> P391 Collect spillage. <b>Disposal:</b> P501 Dispose of contents/ container to an approved waste disposal plant.  NOT CLASSIFIED AS DANGEROUS GOODS when transported by road or rail within Australia under Special Provision AU01 of the Australian Dangerous Goods Code, 7th Edition. CLASSIFIED AS DANGEROUS GOODS when transported by sea or air.

**SECTION 3 – COMPOSITION**

Hazardous Components	<b>Imidacloprid</b> Concentration [Weight percent] 10 - < 20 CAS-No.: 138261-41-3 CAS name: 2-Imidazolidinimine, 1-((6-chloro-3-pyridinyl)methyl)-N-nitro GHS Classification: Acute Tox. 4 H302 Aquatic Acute 1 H400 Aquatic Chronic 1 H410
	<b>Flumethrin</b> Concentration [Weight percent] 3 - < 10 CAS-No.: 69770-45-2 CAS name: Cyclopropanecarboxylic acid, 3-(2-chloro-2-(4-chlorophenyl)ethenyl)-2,2-dimethyl-, cyano(4-fluoro-3-phenoxyphenyl)methyl ester GHS Classification Acute Tox. 3 H301 Acute Tox. 4 H312 Acute Tox. 3 H331 Aquatic Acute 1 H400 Aquatic Chronic 1 H410

**SECTION 4 – FIRST AID MEASURES**

Label Regulated First Aid Statement	If poisoning occurs contact a doctor or Poisons Information Centre. Phone Australia 131126.
General	Remove all contaminated clothing immediately.
Inhalation	Remove to fresh air. If symptoms persist, call a physician.
Skin contact	After contact with skin, wash immediately with plenty of soap and water. If skin reactions occur, contact a physician.
Eye contact	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Ingestion	If swallowed, seek medical advice immediately and show this container or label.
Advice to doctor	Imidacloprid is a chloronicotinyl compound (syn. neonicotinoid). Flumethrin is a synthetic pyrethroid. The formulation is embedded in a plastic matrix collar, which releases the active constituents very slowly. In case of accidental ingestion, treat symptomatically.

**SECTION 5 – FIRE FIGHTING MEASURES**

Extinguishing media	Suitable extinguishing media: any
Fire and explosion hazards	Non-combustible material.
Hazardous combustion products	Fire may cause evolution of: Carbon monoxide (CO) Carbon dioxide (CO <sub>2</sub> ).
Advice for fire fighters	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.  Prevent fire extinguishing water from contaminating surface water or the ground water system.

**SECTION 6 – ACCIDENTAL RELEASE MEASURES**

Accidental Release	Use personal protective equipment.  Do not flush into surface water or sewer system.  Methods for cleaning up: Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.  Avoid dust formation.
--------------------	---

**SECTION 7 – HANDLING AND STORAGE**

Precautions for safe handling	Handling: Avoid dust formation. Only handle product with local exhaust ventilation. Avoid contact with skin, eyes and clothing.  No special protective measures against fire required.
Conditions for safe storage, including any incompatibilities	Suitable stores with adequate product-reception volume must be used. During handling local official regulations must be observed in order to avert impairment of water by the product.

**SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION**

Control parameters	<p>Components with workplace control parameters (internationally)  Substance: Imidacloprid  CAS-No. 138261-41-3  Type: SUP*  Value: 0.7 mg/m<sup>3</sup>  * SUP =OEL-workplace limit value originate from the safety data sheet of the supplier</p>
Personal protective measures	<p><b>Respiratory protection:</b>  Full mask with filter ABEK-ST (ABEK-P3)</p> <p><b>Hand protection:</b> Protective gloves for chemicals made of nitrile rubber or PVC. Breakthrough time not tested; dispose of immediately after contamination. Advice: The gloves should not be reused.</p> <p><b>Eye protection:</b> Safety glasses</p>

**SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES**

Physical State	Solid
Colour	Grey
Odour	No statements available
Melting Point	140 °C
Boiling Point	Flumethrin > 250 °C at 1.013 hPa
Solidifying Range	No statements available
Density	No statements available
Vapour Pressure	No statements available
Viscosity	No statements available
Solubility in Water	No statements available
pH	neutral
Flash Point	No statements available
Ignition Temperature	Not relevant
Explosive Limits	Not relevant
Partition coefficient (n-octanol/water)	<p>Imidacloprid: log Pow: 0.57 at 21 °C OECD Test Guideline 107</p> <p>Flumethrin: log Pow: 6.2</p>

**SECTION 10 – STABILITY & REACTIVITY**

Reactivity	No statements available.
Chemical stability	No statements available.
Possibility of hazardous reactions	Deflagration ability: No statements available. Smoldering combustion: No statements available.
Conditions to avoid	Oxidizing properties: No statements available. Minimum ignition energy: no data available.
Incompatible materials	No data available
Hazardous decomposition products	Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> )

**SECTION 11 – TOXICOLOGICAL INFORMATION**

Acute Toxicity	<p><b>Acute Oral Toxicity: Seresto Collar</b> Acute toxicity estimate (ATE) &gt; 2.000 mg/kg May be harmful if swallowed. Method: Calculation method <b>Imidacloprid:</b> LD50 rat: 424 mg/kg: Harmful if swallowed. <b>Flumethrin:</b> LD50 rat: 175 mg/kg: Test substance: in corn oil Toxic if swallowed.</p> <p><b>Acute Inhalation Toxicity: Seresto Collar</b> Acute toxicity estimate (ATE) &gt; 5 mg/l Dust/mist/aerosol: May be harmful if inhaled. Method: Calculation method <b>Imidacloprid:</b> LC50 rat: &gt; 5,323 mg/l, 4 h Dust/mist/aerosol: May be harmful if inhaled. Method: OECD Test Guideline 403 <b>Flumethrin:</b> LC50 rat: 0,572 mg/l, 4 h: Toxic if inhaled. Method: OECD Test Guideline 403</p> <p><b>Acute Dermal Toxicity:</b> <b>Imidacloprid:</b> LD50 rat: &gt; 5.000 mg/kg The substance or mixture has no acute dermal toxicity <b>Flumethrin:</b> LD50 rat, female: 1.436 mg/kg Harmful in contact with skin.</p> <p><b>Acute Toxicity (other routes of administration):</b> No statements available. <b>Corrosivity:</b> No statements available.</p>
----------------	--

**SECTION 11 – TOXICOLOGICAL INFORMATION (cont.)**

Skin Irritation	<p><b>Imidacloprid:</b> Rabbit - Result: No skin irritation</p> <p><b>Flumethrin:</b> Rabbit - Result: No skin irritation</p>
Eye Irritation	<p><b>Imidacloprid:</b> Rabbit: Result: No eye irritation</p> <p><b>Flumethrin:</b> Rabbit: Result: No eye irritation</p>
Sensitisation	<p><b>Imidacloprid:</b> Test Type: Skin sensitization guinea pig Result: Did not cause sensitization on laboratory animals. Method: Magnusson and Kligmann maximization test</p> <p><b>Flumethrin:</b> Test Type: Skin sensitization guinea pig Result: Did not cause sensitization on laboratory animals. Method: Magnusson and Kligmann maximization test</p>
Phototoxicity	No statements available
Subacute, Subchronic And Prolonged Toxicity	<p><b>STOT - single exposure: Flumethrin:</b> The substance or mixture is not classified as specific target organ toxicant, single exposure.</p> <p><b>STOT - repeated exposure: Flumethrin:</b> The substance or mixture is not classified as specific target organ toxicant, repeated exposure.</p> <p><b>Aspiration toxicity:</b> No statements available.</p>
Reproductive Effects	<p><b>Genotoxicity in vitro:</b></p> <p><b>Imidacloprid:</b> Ames test Result: negative In vitro tests did not show mutagenic effects</p> <p><b>Flumethrin:</b> Result: No evidence of a genotoxic effect.</p> <p><b>Genotoxicity in vivo:</b></p> <p><b>Imidacloprid:</b> Result: No indication of mutagenic effects., No evidence of a genotoxic effect.</p> <p><b>Flumethrin:</b> Result: No evidence of a genotoxic effect.</p> <p><b>Fertility:</b></p> <p><b>Imidacloprid:</b> Result: Animal studies have produced no evidence of toxic effects on reproduction.</p> <p><b>Flumethrin:</b> Rat: Result: Animal testing did not show any effects on fertility.</p> <p><b>Imidacloprid:</b> Result: Animal studies have produced no evidence of harmful effects on development.</p> <p><b>Flumethrin:</b> Result: Did not show teratogenic effects in animal experiments.</p>
Developmental Toxicity	<p><b>Flumethrin:</b> Rat: Result: Animal testing did not show any effects on fertility. Result: Did not show teratogenic effects in animal experiments.</p> <p><b>Imidacloprid:</b> Result: Animal studies have produced no evidence of harmful effects on development.</p>
Carcinogenicity	<p><b>Imidacloprid:</b> Result: Animal testing did not show any carcinogenic effects.</p> <p><b>Flumethrin:</b> Rat: Result: Animal testing did not show any carcinogenic effects. Mouse: Result: Animal testing did not show any carcinogenic effects.</p>

**SECTION 12 – ECOLOGICAL INFORMATION**

Ecotoxicology  
Assessment

**Imidacloprid:** Acute aquatic toxicity: Very toxic to aquatic life.  
Chronic aquatic toxicity: Very toxic to aquatic life with long lasting effects.

**Flumethrin:** Acute aquatic toxicity: Very toxic to aquatic life.  
Chronic aquatic toxicity: Very toxic to aquatic life with long lasting effects.

Toxicity

**Toxicity to fish:**

**Imidacloprid:** Acute Fish toxicity: LC50 280 mg/l

Test species: *Cyprinus carpio* (Carp) Duration of test: 96 h

Acute Fish toxicity: LC50 211 mg/l

Test species: *Oncorhynchus mykiss* (rainbow trout) Duration of test: 96 h

Acute Fish toxicity: LC50 237 mg/l

Test species: *Leuciscus idus* (Golden orfe) Duration of test: 96 h

**Flumethrin** Acute Fish toxicity: LC50 0.17 mg/l

Test species: *Oncorhynchus mykiss* (rainbow trout) Duration of test: 96 h

Method: OECD Test Guideline 203

**Toxicity to daphnia and other aquatic invertebrates:**

**Imidacloprid:** EC50 0.055 mg/l

Test species: *Hyalella azteca* Duration of test: 96 h

**Flumethrin:** EC50 0.0027 mg/l

Test species: *Daphnia magna* (Water flea) Duration of test: 48 h

Method: OECD Test Guideline 202

**Toxicity to algae:**

**Imidacloprid:** EC50 > 100 mg/l

Test species: *Pseudokirchneriella subcapitata* (green algae)

Duration of test: 72 h

EC50 > 10 mg/l - Test species: *Desmodesmus subspicatus* (green algae) Duration of test: 72 h

**Flumethrin:** IC50 0.59 mg/l

Test species: *Desmodesmus subspicatus* (green algae) Duration of test: 72 h

Method: OECD Test Guideline 201

**Toxicity to bacteria:**

**Imidacloprid:** EC50 > 10.000 mg/l

Test species: activated sludge micro-organism

Method: OECD TG 209

**Toxicity to fish (chronic toxicity):** No statements available.

**Toxicity to daphnia and other aquatic invertebrates (chronic toxicity):**No statements available.

**Toxicity on soil-dwelling organisms:** No statements available.

**Toxicity on other terrestrial non-mammal:** No statements available.

**SECTION 12 – ECOLOGICAL INFORMATION (cont.)**

Persistence and degradability

**Biodegradability:** Flumethrin: 0 %, 28 d not rapidly biodegradable

Method: OECD TG 301 F

**Adsorbed organic bound halogens (AOX):**

Imidacloprid: The product contains organic halogens.

**Stability in water:**

Imidacloprid: Half-life time: &gt; 1 a 25 °C, pH 4 at 25 °C

Half-life time: &gt; 1 a 25 °C, pH 7 at 25 °C

Half-life time: ca. 1 h 25 °C, pH 9 at 25 °C

**Additional degradation pathways:** No statements available.**Photodegradation:** No statements available.**M-Factor:** Imidacloprid: 1.000. Flumethrin: 100

Bioaccumulative potential

**Bioaccumulation:****Imidacloprid**

Low potential for bioaccumulation

**Partition coefficient (n-octanol/water):**

Imidacloprid: log Pow: 0,57 at 21 °C OECD Test Guideline 107

Flumethrin: log Pow: 6,2

**SECTION 13 – DISPOSAL INFORMATION**

Waste treatment methods

Transport to suitable incinerator with reduced non-air emission.

Contaminated packaging: Contaminated, empty containers are to be treated in the same way as the contents.

**SECTION 14 – TRANSPORT INFORMATION**

UN No

3077

UN Proper Shipping Name

Environmentally Hazardous Substance, Solid, N.O.S. (Flumethrin, Imidacloprid)

Class &amp; Subsidiary Risk

9

Packaging Group

III

Hazchem Code

3Z

Special Note

NOT CLASSIFIED AS DANGEROUS GOODS when transported by road or rail within Australia under Special Provision AU01 of the Australian Dangerous Goods Code, 7th Edition.

CLASSIFIED AS DANGEROUS GOODS when transported by sea or air.



**SECTION 15 – REGULATORY INFORMATION**

Poisons Schedule	S6
APVMA Registration	The products are registered by the APVMA.
Registration Numbers	65875, 66209 and 101322
Labelling	All necessary directions, precautions and warnings for normal use of the product are included on the product label.

**SECTION 16 – OTHER INFORMATION**

Summary of Changes	New SDS
Acronyms	<p><b>ADG</b> Code Australian Code for the Transport of Dangerous Goods by Road and Rail</p> <p><b>APVMA</b> Australian Pesticides and Veterinary Medicines Authority</p> <p><b>CAS</b> Chemical Abstracts Service Registry Number</p> <p><b>GHS</b> Globally Harmonized System of Classification and Labelling of Chemicals</p> <p><b>HDPE</b> High density polyethylene</p> <p><b>LDPE</b> Low density polyethylene</p> <p><b>OECD</b> Organisation for Economic Co-operation and Development</p> <p><b>STOT</b> Specific Target Organ Toxicity</p> <p><b>SUSDP</b> Standard for the Uniform Scheduling of Drugs and Poisons</p> <p><b>TWA</b> Time Weighted Average – average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.</p> <p><b>UN Number</b> United Nations number</p>
Disclaimer	<p>This Safety Data Sheet has been developed according to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Third revised edition. United Nations, 2009. The data, information and recommendations herein ("information") are represented in good faith and believed to be correct as of the date hereof. The purpose of this Safety Data Sheet is to describe product in terms of their safety requirements. Bayer Australia Limited makes no representation of merchantability, fitness for a particular purpose or application, or of any other nature with respect to the information or the product to which the information refers ("the product"). The information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use of the product. The physical data shown herein are typical values based on material tested. These values should not be construed as a guaranteed analysis of any specific lot or as guaranteed specification for the product or specific lots thereof. Due care should be taken to make sure that the use or disposal of this product and / or its packaging is in compliance with relevant Federal, State and Local Government regulations.</p>

**END OF SDS**