1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product information

Product Name: SERESTO COLLAR
MSDS Number: 122000005913

Use : veterinary medicine

Company
BAYER HEALTHCARE LLC
Animal Health Division
12707 Shawnee Mission Parkway
(West 63rd)
Shawnee, KS 66216-1846
USA
(800) 633-3796

In case of emergency: (800) 422-9874
Chemtrec: (800) 424-9300
BAYER INFORMATION PHONE:(800) 633-3796
INTERNATIONAL:(703) 527-3887

2. HAZARDS IDENTIFICATION

Emergency Overview

CAUTION! Colour: grey **Form:** solid
May be harmful if swallowed.

Hazard Communication (29CFR 1910.1200)

No Carcinogenic substances as defined by IARC, NTP and/or OSHA

3. COMPOSITION/INFORMATION ON INGREDIENTS

Weight percent	Components	CAS-No.
10%	Imidacloprid	138261-41-3
40 - 70%	Tradesecret	

1 - 5%	Tradesecret

Other Ingredients

Weight percent	Components	CAS-No.
4.5%	flumethrin	69770-45-2

4. FIRST AID MEASURES

General advice: Take off all contaminated clothing immediately.

If inhaled: Remove to fresh air. If symptoms persist, call a physician.

In case of skin contact: After contact with skin, wash immediately with plenty of soap and water. If skin reactions occur, contact a physician.

In case of eye contact: In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

If swallowed: If swallowed, seek medical advice immediately and show this container or label.

Contact Number: Use the Bayer Emergency Number in Section 1

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Any

Specific hazards during fire fighting: Fire may cause evolution of: Carbon monoxide Carbon dioxide (CO2)

Special protective equipment for fire-fighters: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

Further information: Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment.

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 (see section 13).

Additional advice: Avoid dust formation.

Further Accidental Avoid dust formation.

Release Notes

7. HANDLING AND STORAGE

Handling:
Avoid dust formation. Only handle product with local exhaust ventilation. Avoid contact with skin, eyes and clothing.

Take measures to prevent the build up of electrostatic charge. Keep away from open flames, hot surfaces and sources of ignition.

Storage:
Store in a cool dry place, away from oxidizing agents and flammable liquids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection:
Recommended Filter type: HEPA

Hand protection:
Chemically resistant gloves.

Eye protection:
Safety glasses

Other protective measures:
Wear suitable protective equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Colour:	grey	
Melting point:	140 °C	DIN ISO 3146
Bulk density:	550 kg/m3	ISO 697
pH:	neutral	
Flash point:		
Ignition temperature:	219.2 °F (104 °C)	DIN 51758
Ignition temperature:	no data available	
Explosion limits:	no data available	

10. STABILITY AND REACTIVITY

Conditions to avoid: Avoid extreme heat.

Materials to avoid: Oxidizing agents

Hazardous reactions: None known.

Thermal decomposition:

no data available

Hazardous decomposition products:
Carbon monoxide, Carbon dioxide (CO2)

Oxidizing properties:

No statements available.

Impact Sensitivity:
no data available

11. TOXICOLOGICAL INFORMATION

Other information on toxicity:
Tradesecret

Acute oral toxicity:
flumethrin
LD50 rat: 175 mg/kg
Test substance: in corn oil

Imidacloprid
LD50 rat: 424 mg/kg

Tradesecret
LD50 rat: 4,640 mg/kg

Tradesecret

Acute inhalation toxicity:
flumethrin
LC50 rat: 0.572 mg/l, 4 h
Method: OECD Test Guideline 403

Imidacloprid
LC50 rat: > 5.323 mg/l, 4 h
Method: OECD Test Guideline 403

LC50rat: > 69 mg/l, 4 h

Acute dermal toxicity:
flumethrin
LD50 rat, female: 1,436 mg/kg

Imidacloprid
LD50 rat: > 5,000 mg/kg

Tradesecret
LD50 rabbit: > 5,000 mg/kg

Acute toxicity (other routes of administration):
Tradesecret
LD50 intravenous mouse: 23 mg/kg

Skin irritation:
flumethrin
Result: No skin irritation
Test substance: 10% solution
in olive oil

Imidacloprid
rabbit
Result: No skin irritation

Tradesecret
rabbit
Result: Moderate skin irritation

Eye irritation:
flumethrin
Result: No eye irritation
Test substance: 10% solution
in olive oil

Imidacloprid
rabbit
Result: No eye irritation

Tradesecret
Result: non-irritant
Test substance: Data on a comparable substance

Sensitisation:
flumethrin
Skin sensitization guinea pig
Result: Did not cause sensitization on laboratory animals.
Method: Magnusson and Kligmann maximization test

Imidacloprid
Skin sensitization guinea pig
Result: Did not cause sensitization on laboratory animals.
Method: Magnusson and Kligmann maximization test

Genotoxicity in vitro:
flumethrin
Result: No evidence of a genotoxic effect.

Imidacloprid
Ames test
Result: negative

Tradesecret
Ames test
Result: negative
Test substance: Data on a comparable substance

Genotoxicity in vivo:
flumethrin

Result: No evidence of a genotoxic effect.

Carcinogenicity:
flumethrin
rat:
Result: Animal testing did not show any carcinogenic effects.

mouse:
Result: Animal testing did not show any carcinogenic effects.

Reproductive toxicity:
flumethrin
rat: Result: Animal testing did not show any effects on fertility.

Teratogenicity:
flumethrin
Result: Did not show teratogenic effects in animal experiments.

Pharmaceutic effects:
flumethrin
Antiparasitic agent

Imidacloprid
Insecticide

12. ECOLOGICAL INFORMATION

General advice:
Do not allow to enter surface waters or groundwater.

Toxicity to fish:
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

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

Toxicity to daphnia and other aquatic invertebrates:
flumethrin
EC50 0.0027 mg/l
Test species: Daphnia magna (Water flea) Duration of test: 48 h
Method: OECD Test Guideline 202

Imidacloprid
EC50 85 mg/l
Test species: Daphnia magna (Water flea) Duration of test: 48 h

EC50 0.055 mg/l
Test species: Hyalella azteca Duration of test: 96 h

LC50 0.0552 mg/l
Test species: Chironomus Riparius (non-biting midge) Duration of test: 24 h

Toxicity to algae:
flumethrin
IC50 0.59 mg/l
tested on: Desmodesmus subspicatus (green algae) Duration of test: 72 h
Method: OECD Test Guideline 201

Imidacloprid
EC50 > 100 mg/l
tested on: Pseudokirchneriella subcapitata (green algae) Duration of test: 72 h

EC50 > 10 mg/l
tested on: Desmodesmus subspicatus (green algae) Duration of test: 72 h

Biodegradability:
flumethrin
0 %, 28 d Not readily biodegradable.
Method: OECD TG 301 F

Bioaccumulation:
Imidacloprid

Low potential for bioaccumulation

13. DISPOSAL CONSIDERATIONS

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

Waste disposal should be in accordance with existing federal, state and local environmental control laws.

14. TRANSPORT INFORMATION

Land transport (CFR)
Non-Regulated

Sea transport (IMDG)
Non-Regulated

Air transport (ICAO / IATA cargo aircraft only)
Non-Regulated

Air transport (ICAO / IATA passenger and cargo aircraft)
Non-Regulated

15. REGULATORY INFORMATION

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)
Components
None

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required
Components
None

US. EPA CERCLA Hazardous Substances (40 CFR 302)Components
None

California Prop. 65

To the best of our knowledge, this product does not contain any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.

OSHA Hazcom Standard Rating Hazardous

16. OTHER INFORMATION

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.