SAFETY DATA SHEET

Bayvarol Strips

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	06/18/2020	122000001007	Date of first issue: 18.06.2020

SECTION 1. IDENTIFICATION

Product information

Product Name : Bayvarol Strips
SDS Number : 122000001007
Registration number 32503

Use : Veterinary medicine

Company

Elanco Canada Ltd.
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In case of emergency: CHEMTREC International: +1 703-527-3887 (24 hours)

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the Hazardous Products Regulations

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Acetone	67-64-1	1,0925
Flumethrin	69770-45-2	0,0574

SECTION 4. FIRST AID MEASURES

General advice : No hazards which require special first aid measures.

If inhaled : Not an expected entry route.

In case of skin contact : If skin irritation persists, call a physician.

In case of eye contact : Flush eyes with water as a precaution.

If swallowed	:	In case of accidental ingestion, contact your regional poison center or physician immediately.
Most important symptoms and effects, both acute and delayed	:	No information available.
Notes to physician	:	No information available.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	:	None known.
Specific hazards during firefighting	:	Fire may cause evolution of: Hydrogen cyanide (hydrocyanic acid) Hydrogen chloride gas Nitrogen oxides (NOx) Carbon oxides
Further information	:	Prevent fire extinguishing water from contaminating surface water or the ground water system.
Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Avoid dust formation.
Methods and materials for containment and 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).

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	No special protective measures against fire required.
Advice on safe handling	:	No special precautions required.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type	Control parame-	Basis

		(Form of exposure)	ters / Permissible concentration	
Acetone	67-64-1	TWA	500 ppm 1.200 mg/m³	CA AB OEL
		TWA	500 ppm 1.200 mg/m³	CA AB OEL
		STEL	750 ppm 1.800 mg/m³	CA AB OEL
		STEL	750 ppm 1.800 mg/m³	CA AB OEL
		TWA	250 ppm	CA BC OEL
		TWA	250 ppm	CA BC OEL
		STEL	500 ppm	CA BC OEL
		STEL	500 ppm	CA BC OEL
		STEV	1.000 ppm 2.380 mg/m³	CA QC OEL
		STEV	1.000 ppm 2.380 mg/m³	CA QC OEL
		TWAEV	500 ppm 1.190 mg/m³	CA QC OEL
		TWAEV	500 ppm 1.190 mg/m³	CA QC OEL
		TWA	250 ppm	ACGIH
		TWA	250 ppm	ACGIH
		STEL	500 ppm	ACGIH
		STEL	500 ppm	ACGIH

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sam-pling time	Permissible concentra-tion	Basis
Acetone	67-64-1	Acetone	Urine	End of shift (As soon as possible after exposure ceases)	25 mg/l	ACGIH BEI
		Acetone	Urine	End of shift (As soon as possible after exposure ceases)	25 mg/l	ACGIH BEI

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.
Breathing apparatus only if aerosol or dust is formed.
Effective dust mask

Recommended Filter type:
HEPA

None required for consumer use of this product.

Hand protection
Material : Chemically resistant gloves.

Remarks : None required for consumer use of this product.

Eye protection : Safety glasses
None required for consumer use of this product.

Protective measures : No special safety precautions are required during handling of pharmaceuticals in their intended finished form (tablets or liquid formulations) by chemists, the hospital's medical staff or patients.
For the intake of ready for use pharmaceuticals or the external use on the skin please read the label and the package leaflet.
Wear suitable protective equipment.
Please consult label for end-user requirements.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	solid
Colour	:	white
Odour	:	weak
Melting point / range	:	ca. 120 °C
Vapour pressure	:	Not applicable
Solubility(ies) Water solubility	:	insoluble
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Oxidizing properties	:	No data available
Minimum ignition energy	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No data available
Chemical stability	:	No data available
Possibility of hazardous reactions	:	No data available

Conditions to avoid	:	Do not allow product to come in contact with: Heat Exposure to moisture
Incompatible materials	:	Oxidizing agents
Hazardous decomposition products	:	Hydrogen cyanide (hydrocyanic acid) Hydrogen chloride gas Nitrogen oxides (NOx) Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	:	Acute toxicity estimate (ATE): 2.530 mg/kg Method: Calculation method

Components:

Acetone:

Acute oral toxicity	:	LD50 (Rat): 5.800 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 76,3 mg/l, 32000 ppm Exposure time: 4 h Test atmosphere: vapour
Acute dermal toxicity	:	LD50 (Rabbit): > 15.700 mg/kg

Flumethrin:

Acute oral toxicity	:	LD50 (Rat): 175 mg/kg Test substance: in corn oil
Acute inhalation toxicity	:	LC50 (Rat): 0,572 mg/l Exposure time: 4 h Test atmosphere: dust/mist/aerosol Method: OECD 403
Acute dermal toxicity	:	LD50 (Rat, female): 1.436 mg/kg

Skin corrosion/irritation

Components:

Acetone:

Species	:	Rabbit
Assessment	:	Repeated exposure may cause skin dryness or cracking.
Result	:	No skin irritation

Flumethrin:

Species : Rabbit
Result : No skin irritation

Serious eye damage/eye irritation

Components:

Acetone:

Species : Rabbit
Result : Irritating to eyes.
Method : OECD 405

Flumethrin:

Species : Rabbit
Result : No eye irritation

Respiratory or skin sensitisation

Components:

Acetone:

Species : Guinea pig
Method : OECD 406
Result : Does not cause skin sensitisation.

Flumethrin:

Test Type : Skin sensitisation
Species : Guinea pig
Method : Magnusson and Kligmann maximization test
Result : Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Components:

Acetone:

Genotoxicity in vitro : Test Type: Ames test
Result: negative

Flumethrin:

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

Genotoxicity in vivo : Result: No evidence of a genotoxic effect.

Carcinogenicity

Components:

Flumethrin:

Species : Rat
Result : Animal testing did not show any carcinogenic effects.

Reproductive toxicity

Components:

Flumethrin:

Effects on fertility : Species: Rat
Result: Animal testing did not show any effects on fertility.

STOT - single exposure

Components:

Acetone:

Exposure routes : Inhalation
Assessment : May cause drowsiness or dizziness.

Flumethrin:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

Components:

Flumethrin:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Further information

Components:

Acetone:

Remarks : If inhaled
Headache
drowsiness

Remarks : Inhalation of vapours in high concentration can cause narcotic effects and metabolic acidosis.

Flumethrin:

Pharmaceutic effects
Remarks : Antiparasitic agent

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Acetone:

Toxicity to microorganisms : EC10 (Pseudomonas putida): 1.700 mg/l

Ecotoxicology Assessment

Acute aquatic toxicity : slightly hazardous to water

Flumethrin:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0,17 mg/l
Exposure time: 96 h
Test Type: Acute Fish toxicity
Method: OECD 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,0027 mg/l
Exposure time: 48 h
Method: OECD 202

Toxicity to algae/aquatic plants : IC50 (Desmodesmus subspicatus (green algae)): 0,59 mg/l
Exposure time: 72 h
Method: OECD 201

Persistence and degradability

Components:

Acetone:

Biodegradability : aerobic
Biodegradation: 84 %
Exposure time: 20 d
Remarks: According to the results of tests of biodegradability this product is considered as being readily biodegradable.

Biochemical Oxygen Demand (BOD) : Biochemical oxygen demand within 5 days
810 mg/g

Chemical Oxygen Demand (COD) : 1.920 mg/g

BOD/COD : BOD/COD: 0,96 %

Flumethrin:

Biodegradability : Result: Not rapidly biodegradable
Biodegradation: 0 %
Exposure time: 28 d
Method: OECD 301F

Bioaccumulative potential

Components:

Acetone:

Partition coefficient: n-octanol/water : log Pow: -0,24
Method: experimental

Flumethrin:

Partition coefficient: n-octanol/water : log Pow: 6,2

Mobility in soil

No data available

Other adverse effects

Product:

Additional ecological information : Do not allow to enter surface waters or groundwater.
Due to the polymer matrix is an immediate environmental hazards caused by the active substance in the accident - not to be expected.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic.

However, under MOE, 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.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

49 CFR
Not regulated as a dangerous good

TDG
Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

International Regulations

Montreal Protocol (Ozone Depleting Substances)	:	Not applicable
Rotterdam Convention (Prior Informed Consent)	:	Not applicable
Stockholm Convention (Persistent Organic Pollutants)	:	Not applicable

Canadian lists
No substances are subject to a Significant New Activity Notification.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	:	ACGIH - Biological Exposure Indices (BEI)
CA AB OEL	:	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
CA BC OEL	:	Canada. British Columbia OEL
CA QC OEL	:	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
CA AB OEL / TWA	:	8-hour Occupational exposure limit
CA AB OEL / STEL	:	15-minute occupational exposure limit
CA BC OEL / TWA	:	8-hour time weighted average
CA BC OEL / STEL	:	short-term exposure limit
CA QC OEL / TWAEV	:	Time-weighted average exposure value
CA QC OEL / STEV	:	Short-term exposure value

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