



SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

122000001007

## Bayvarol Strips - Bulk

Version 4.0

Revision Date 15.08.2016

Print Date 08.09.2016

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

#### 1.1 Product identifier

Bayvarol Strips - Bulk  
BAYVAROL LANIERES

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the : veterinary medicine, unfinished  
Substance/Mixture

#### 1.3 Details of the supplier of the safety data sheet

##### Company

Bayer (Sichuan) Animal Health Co.,Ltd  
189 Chang Cheng Road Section One  
610225 CHENGDU  
PR OF CHINA  
400-810-0360 or 800-810-1828  
+86-28-65068402

#### 1.4 Emergency telephone number

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### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

##### GHS-Classification (according to EC 1272/2008):

Hazardous to the aquatic environment, Category 2 (H411)

#### 2.2 Label elements

##### GHS-Labeling (according to EC 1272/2008):

According to Annex I, section 1.3 this product does not require a label.

#### 2.3 Other hazards

Other hazards which do not result in classification:  
None known.

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS



SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

122000001007

## Bayvarol Strips - Bulk

Version 4.0

Revision Date 15.08.2016

Print Date 08.09.2016

This product is a mixture within the meaning of Regulation (EC) No. 1907/2006.

### Hazardous components

#### Acetone

Concentration [Weight percent]  $\geq 1 - < 3$

CAS-No.: 67-64-1

CAS name: 2-Propanone

EINECS-No.: 200-662-2

Index-No.: 606-001-00-8

#### GHS Classification:



Flam. Liq. 2 H225

Eye Irrit. 2 H319

STOT SE 3 H336

#### Flumethrin

Concentration [Weight percent]  $< 0.1$

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

EINECS-No.: 274-110-4

Synonyms: Bayticol P

#### GHS Classification:



Acute Tox. 3 H301

Acute Tox. 4 H312

Acute Tox. 3 H331

Aquatic Acute 1 H400

Aquatic Chronic 1 H410

**M-Factor:** 100

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### contains

#### polyethylene

Concentration [Weight percent] 80 - 100

CAS-No.: 9002-88-4

CAS name: Ethene, homopolymer

EINECS-No.: 618-339-3

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For the full text of the H-Statements mentioned in this Section, see Section 16.

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SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

122000001007

## Bayvarol Strips - Bulk

Version 4.0

Revision Date 15.08.2016

Print Date 08.09.2016

---

### 4. FIRST AID MEASURES

#### 4.1 Description of 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.

#### 4.2 Most important acute symptoms/effects

**Symptoms:** No information available.

**Risks:** No information available.

#### 4.3 Indication of any immediate medical attention and special treatment needed

No information available.

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### 5. FIREFIGHTING MEASURES

#### 5.1 Extinguishing media

**Suitable extinguishing media:** Any

#### 5.2 Special hazards arising from the substance or mixture

**Specific hazards during firefighting:** Fire may cause the release 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.

#### 5.3 Advice for firefighters

**Special protective equipment for firefighters:** In the event of fire, wear self-contained breathing apparatus.

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### 6. ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.



SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

122000001007

## Bayvarol Strips - Bulk

Version 4.0

Revision Date 15.08.2016

Print Date 08.09.2016

### 6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system.

### 6.3 Methods and materials for containment and cleaning up

**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).

### 6.4 Reference to other sections

**Additional advice:** Avoid dust formation.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

**Handling:**

No special precautions required.

No special protective measures against fire required.

### 7.2 Conditions for safe storage, including any incompatibilities

For storage 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.

### 7.3 Specific end use(s)

No statements available.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

Substance	CAS-No.	Basis	Type:	Value	Ceiling Limit Value	Remarks
Acetone	67-64-1	EH40 WEL	VLA-ED	500 ppm 1,210 mg/m <sup>3</sup>		
Acetone	67-64-1	EH40 WEL	STEL	1,500 ppm 3,620 mg/m <sup>3</sup>		



SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

122000001007

**Bayvarol Strips - Bulk**

Version 4.0

Revision Date 15.08.2016

Print Date 08.09.2016

Acetone	67-64-1	EU ELV	VLA-ED	500 ppm 1,210 mg/m <sup>3</sup>		Indicative
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Substance	CAS-No.	Basis	Type:	Value	Ceiling Limit Value	Remarks
Acetone	67-64-1	EH40 WEL	VLA-ED	500 ppm1,21 0 mg/m <sup>3</sup>		
Acetone	67-64-1	EH40 WEL	STEL	1,500 ppm3,62 0 mg/m <sup>3</sup>		
Flumethrin	69770-45-2		OEL (Bayer)	0.02 mg/m <sup>3</sup>	1 (l)	Not teratogenic if the exposure limit value is applied

**8.2 Exposure controls****Personal protective measures:****Respiratory protection:**

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

**Hand protection:**

Hand protection: protective gloves for chemicals made of Baypren, nitrile rubber or PVC wear Breakthrough time not tested; dispose of immediately after contamination. Advice: The gloves should not be reused.

**Eye protection:**

Safety glasses

**Hygiene measures:**

Cleanliness Guidelines (GMP) for manufacturing of drugs must be observed!

**Other 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.

The personal protective equipment is applicable for the handling of bulk material without packaging and for incidents if an exposure by the active ingredient or hazardous components can be expected.



SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

122000001007

## Bayvarol Strips - Bulk

Version 4.0

Revision Date 15.08.2016

Print Date 08.09.2016

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties

Form:	solid	
Colour:	white	
Odour:	weak	
Melting point/range:	ca. 120 °C	
Boiling point/boiling range:	No statements available.	
Density:	No statements available.	
Bulk density:	No statements available.	
Vapour pressure:	Not applicable	
Viscosity, dynamic:	No statements available.	
Viscosity, kinematic:	No statements available.	
Flow time:	No statements available.	
Surface tension:	No statements available.	
Water solubility:	insoluble	
Solubility(ies):	No statements available.	
pH:	No statements available.	
Partition coefficient (n-octanol/water):	Acetone log Pow: -0.24 Flumethrin log Pow: 6.2	experimental
Flash point:	Not applicable	
Inflammability (solid, gaseous):	No statements available.	
Explosion limits:	Acetone upper: 13 %(V) lower: 2.5 %(V)	

#### 9.2 Other information

Miscibility with water: Not applicable

### 10. STABILITY AND REACTIVITY

#### 10.1 Reactivity

No statements available.

#### Reactions with water / air:

No statements available.



SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

122000001007

## Bayvarol Strips - Bulk

Version 4.0

Revision Date 15.08.2016

Print Date 08.09.2016

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### Ignition temperature:

#### Acetone

465 °C DIN 51794

#### Flumethrin

450 °C DIN 51794

### Burning number:

No statements available.

### Flammability (solid, gas):

No statements available.

## 10.2 Chemical stability

### Thermal decomposition:

No data available

### Dust explosion characteristic number:

No statements available.

### Dust explosion class:

No statements available.

### Hazardous reactions:

No data available

## 10.3 Possibility of hazardous reactions

## 10.4 Conditions to avoid

Do not allow product to come in contact with:

Heat

Exposure to moisture

### Minimum ignition energy:

No data available

## 10.5 Incompatible materials

### Materials to avoid:

No data available

## 10.6 Hazardous decomposition products

Hydrogen cyanide (hydrocyanic acid), Hydrogen chloride gas, Nitrogen oxides (NO<sub>x</sub>), Carbon oxides

### Further information:

The following applies in general to flammable organic substances and preparations: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.



SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

122000001007

## Bayvarol Strips - Bulk

Version 4.0

Revision Date 15.08.2016

Print Date 08.09.2016

---

### 11. TOXICOLOGICAL INFORMATION

#### Toxicology Assessment:

##### Acetone

Acute effects: Causes serious eye irritation.

##### Flumethrin

Acute effects: Toxic if swallowed. Toxic if inhaled. Harmful in contact with skin.

#### 11.1 Information on toxicological effects

##### Other information on toxicity:

##### Acetone

If inhaled  
headaches  
drowsiness

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

##### Acute oral toxicity:

##### Acetone

LD50 Rat: 5,800 mg/kg

##### Flumethrin

LD50 Rat: 175 mg/kg  
Test substance: in corn oil  
Toxic if swallowed.

##### Acute inhalation toxicity:

##### Acetone

LC50 Rat: 76.3 mg/l, 4 h  
32000 ppm, 4 h

##### Flumethrin

LC50 Rat: 0.572 mg/l, 4 h  
Toxic if inhaled.  
Method: OECD 403

##### Acute dermal toxicity:

##### Acetone

LD50 Rabbit: > 15,700 mg/kg

##### Flumethrin

LD50 Rat, female: 1,436 mg/kg  
Harmful in contact with skin.





SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

122000001007

## Bayvarol Strips - Bulk

Version 4.0

Revision Date 15.08.2016

Print Date 08.09.2016

### Acute toxicity (other routes of administration):

No statements available.

### Corrosivity:

No statements available.

### Skin irritation:

#### Acetone

Rabbit

Result: No skin irritation

Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin resulting in desiccation of the skin.

#### Flumethrin

Rabbit

Result: No skin irritation

### Eye irritation:

#### Acetone

Rabbit

Result: Severe eye irritation

#### Flumethrin

Rabbit

Result: No eye irritation

### Sensitisation:

#### Acetone

guinea pig

Result: Does not cause skin sensitisation.

#### Flumethrin

test Type: Skin sensitization guinea pig

Result: Did not cause sensitisation on laboratory animals.

Method: Magnusson and Kligmann maximization test

### Phototoxicity:

No statements available.

### Subacute, subchronic and prolonged toxicity:

No statements available.

### STOT - single exposure:

#### Acetone

May cause drowsiness or dizziness.

#### Flumethrin

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

### STOT - repeated exposure:

#### Flumethrin



SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

122000001007

## Bayvarol Strips - Bulk

Version 4.0

Revision Date 15.08.2016

Print Date 08.09.2016

---

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

**Aspiration toxicity:**

No statements available.

**Genotoxicity in vitro:**

**Acetone**

Ames test

Result: Negative.

**Flumethrin**

Result: No evidence of a genotoxic effect.

**Genotoxicity in vivo:**

**Flumethrin**

Result: No evidence of a genotoxic effect.

**Carcinogenicity:**

**Flumethrin**

Rat

Result: Animal testing did not show any carcinogenic effects.

**Fertility:**

**Flumethrin**

Rat

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

**Developmental toxicity:**

**Flumethrin**

Result: Did not show teratogenic effects in animal experiments.

**Human experience:**

No statements available.

**Neurotoxicity:**

No statements available.

**Neurological symptoms:**

No statements available.

**Pharmaceutical effects:**

**Flumethrin**

Antiparasitic agent

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SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

122000001007

## Bayvarol Strips - Bulk

Version 4.0

Revision Date 15.08.2016

Print Date 08.09.2016

### 12. ECOLOGICAL INFORMATION

#### Ecotoxicology Assessment

##### Flumethrin

Acute aquatic toxicity: Very toxic to aquatic life.

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

#### 12.1 Toxicity

##### Toxicity to fish:

###### Acetone

Acute Fish toxicity: LC50 7,505 mg/l

Test species: Leuciscus idus (Golden orfe) Duration of test: 48 h

###### Flumethrin

Acute Fish toxicity: LC50 0.17 mg/l

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

Method: OECD 203

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

###### Acetone

LC50 > 10,000 mg/l

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

###### Flumethrin

EC50 0.0027 mg/l

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

Method: OECD 202

##### Toxicity to algae:

###### Acetone

EC10 7,500 mg/l

Test species: Scenedesmus quadricauda (Green algae)

###### Flumethrin

IC50 0.59 mg/l

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

Method: OECD 201

##### Toxicity to bacteria:

###### Acetone

EC10 1,700 mg/l

Test species: Pseudomonas putida

##### Toxicity to fish (Chronic toxicity):

No statements available.

##### Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):

No statements available.



SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

122000001007

## Bayvarol Strips - Bulk

Version 4.0

Revision Date 15.08.2016

Print Date 08.09.2016

### **Toxicity on soil-dwelling organisms:**

No statements available.

### **Toxicity on other terrestrial non-mammal:**

No statements available.

### **12.2 Persistence and degradability**

#### **Biodegradability:**

##### **Acetone**

84 %, 20 d

According to the results of tests of biodegradability this product is considered as being readily biodegradable.

##### **Flumethrin**

0 %, 28 d Not rapidly biodegradable

Method: OECD 301 F

#### **Biochemical Oxygen Demand (BOD):**

##### **Acetone**

810 mg/g, Biochemical oxygen demand within 5 days

#### **Chemical Oxygen Demand (COD):**

##### **Acetone**

1,920 mg/g

#### **BSB in proportion to CSB:**

##### **Acetone**

0.96 %

BOD5

#### **Dissolved organic carbon (DOC):**

No statements available.

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

No statements available.

#### **Theoretical biological oxygen requirement:**

No statements available.

#### **BSB in proportion to ThSB:**

No statements available.

#### **Total organic carbon (TOC):**

No statements available.

#### **Physico-chemical removability:**

No statements available.

#### **Stability in water:**

No statements available.



SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

122000001007

## Bayvarol Strips - Bulk

Version 4.0

Revision Date 15.08.2016

Print Date 08.09.2016

---

### Additional degradation pathways:

No statements available.

### Photodegradation:

No statements available.

### M-Factor:

#### Flumethrin

100

### 12.3 Bioaccumulative potential

#### Bioaccumulation:

No statements available.

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

##### Acetone

log Pow: -0.24 experimental

##### Flumethrin

log Pow: 6.2

### 12.4 Mobility in soil

#### Environmental distribution:

No statements available.

#### Surface tension:

No statements available.

#### Stability in soil:

No statements available.

### 12.5 Results of PBT and vPvB assessment

#### Bayvarol Strips - Bulk

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6 Other adverse effects

#### General advice:

##### Bayvarol Strips - Bulk

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.

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SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

122000001007

## Bayvarol Strips - Bulk

Version 4.0

Revision Date 15.08.2016

Print Date 08.09.2016

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### 13. DISPOSAL CONSIDERATIONS

#### 13.1 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.

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### 14. TRANSPORT INFORMATION

**ADR/RID** non-regulated

**GGVS/GGVE** non-regulated

**ADNR** non-regulated

**IATA** non-regulated

**IMDG** non-regulated

#### 14.6 Special precautions for user

For personal protection see section 8.

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

not applicable

Other information : No dangerous cargo  
Slightly smelling Keep dry  
Keep separated from foodstuffs

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### 15. REGULATORY INFORMATION

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

##### National legislation

##### Other regulations:

No statements available.

#### 15.2 Chemical safety assessment

No statements available.



SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

122000001007

## Bayvarol Strips - Bulk

Version 4.0

Revision Date 15.08.2016

Print Date 08.09.2016

---

### 16. OTHER INFORMATION

#### Full text of H-Statements mentioned in chapters 2 and 3

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H312	Harmful in contact with skin.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

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.