

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## Frontline® Spot-On, liquid (finished product)

Version	Revision Date:	SDS Number:	Date of last issue: 28.02.2018
3.0	23.04.2018	000000049052	Date of first issue: 11.04.2017

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### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Trade name : Frontline® Spot-On, liquid (finished product)

Synonyms : Frontline® Spot-On for Cats and Dogs, Frontline® Spot-On Cat, Frontline® Spot-On Dogs S, Frontline® Spot-On Dogs M, Frontline® Spot-On Dogs L, Frontline® Spot-On Dogs XL, Frontline® Top Spot, Fiprosol, Veloxa® Spot-On, ANIKIL CAT, ANIKIL DOG, PURINA TOTAL CARE CAT , PURINA TOTAL CARE DOG

with API: Fipronil

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

Use of the Substance/Mixture : Pharmaceutical

Recommended restrictions on use : Safety Data Sheet only for the professional user.

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

Company : Boehringer Ing. Pharma GmbH & Co.KG  
Binger Str. 173  
55216 Ingelheim am Rhein

Telephone : +498007790900

E-mail address of person responsible for the SDS : EHS-Services@Boehringer-Ingelheim.com

#### 1.4 Emergency telephone number

Int. Emergency Telephone number: +1 703-527-3887 Chemtrec 24-hours

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### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Flammable liquids , Category 3	H226: Flammable liquid and vapour.
Acute toxicity , Category 4	H302: Harmful if swallowed.
Specific target organ toxicity - repeated exposure , Category 1	H372: Causes damage to organs through prolonged or repeated exposure.
Acute aquatic toxicity , Category 1	H400: Very toxic to aquatic life.

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Chronic aquatic toxicity , Category 1

H410: Very toxic to aquatic life with long lasting effects.

### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.  
H302 Harmful if swallowed.  
H372 Causes damage to organs through prolonged or repeated exposure.  
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash skin thoroughly after handling.  
P273 Avoid release to the environment.  
**Response:**  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.  
P391 Collect spillage.

Hazardous components which must be listed on the label:

Fipronil

### 2.3 Other hazards

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.

The pharmacological effect of the medicament has to be considered (see package leaflet).

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Chemical nature : organic

#### Hazardous components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)

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Fipronil	120068-37-3 424-610-5 608-055-00-8	Acute Tox. 3; H301 Acute Tox. 3; H331 Acute Tox. 3; H311 STOT RE 1; H372 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 10 - < 20
ethanol	64-17-5 200-578-6 603-002-00-5 01-2119457610-43- XXXX	Flam. Liq. 2; H225 Eye Irrit. 2; H319	>= 10 - < 20

For explanation of abbreviations see section 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- General advice : In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
First Aid responders should pay attention to self-protection and use the recommended protective clothing  
Remove from exposure, lie down.  
Take off immediately all contaminated clothing.  
Victim to lie down in the recovery position, cover and keep him warm.
- If inhaled : Move to fresh air.
- In case of skin contact : Wash off immediately with plenty of water.
- In case of eye contact : Rinse immediately with plenty of water for at least 15 minutes.  
Keep eye wide open while rinsing.
- If swallowed : Rinse mouth.  
Drink plenty of water.

#### 4.2 Most important symptoms and effects, both acute and delayed

- Risks : No information available.
- Harmful if swallowed.  
Causes damage to organs through prolonged or repeated exposure.

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

- Treatment : Observe the summary of product characteristics of proprietary medicinal products  
Symptomatic treatment (decontamination, vital functions).

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### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Water  
Dry chemical  
Foam  
Carbon dioxide (CO<sub>2</sub>)

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

Specific hazards during fire-fighting : In case of fire and/or explosion do not breathe fumes.  
Can be released in case of fire:  
Carbon oxides  
Nitrogen oxides (NO<sub>x</sub>)  
Sulphur oxides  
Hydrogen chloride gas

#### 5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. complete suit protecting against chemicals

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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### SECTION 6: Accidental release measures

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

Personal precautions : Wear personal protective equipment.  
Ensure adequate ventilation.  
High risk of slipping due to leakage/spillage of product.  
Suppress vapours with waterspray.

#### 6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.

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

Methods for cleaning up : Pick up and transfer to properly labelled containers.

#### 6.4 Reference to other sections

For personal protection see section 8., For disposal considerations see section 13.

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### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

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- Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Breathing must be protected when large quantities are de-canted without local exhaust ventilation. Keep container closed when not in use.
- Advice on protection against fire and explosion : Vapours may form explosive mixtures with air.
- Hygiene measures : General industrial hygiene practice. Wash hands and face before breaks and immediately after handling the product. Keep working clothes separately.

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

- Requirements for storage areas and containers : Keep tightly closed in a dry and cool place. Keep in a well-ventilated place. Protect from heat and direct sunlight. Jointless smooth floor
- Advice on common storage : Keep away from food, drink and animal feedingstuffs. Advice on Segregation
- Storage class (TRGS 510) : 3, Flammable Liquids

### 7.3 Specific end use(s)

- Specific use(s) : Consult the technical guidelines for the use of this substance/mixture.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
2-(2-ethoxyethoxy)ethanol	111-90-0	AGW (Vapour and aerosols)	6 ppm 35 mg/m <sup>3</sup>	DE TRGS 900
Peak-limit: excursion factor (category)	2;(I)			
Further information	Commission for dangerous substances, Sum of vapor and aerosols., When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
ethanol	64-17-5	AGW	500 ppm 960 mg/m <sup>3</sup>	DE TRGS 900
Peak-limit: excursion factor (category)	2;(II)			
Further information	Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission)., When there is compliance with the OEL			

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and biological tolerance values, there is no risk of harming the unborn child

### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
Ethanol	Workers	Inhalation	Acute local effects	= 1900 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	= 343 mg/kg
	Workers	Inhalation	Long-term systemic effects	= 950 mg/m <sup>3</sup>
	Consumers	Inhalation	Acute local effects	= 950 mg/m <sup>3</sup>
	Consumers	Skin contact	Long-term systemic effects	= 206 mg/kg
	Consumers	Inhalation	Long-term systemic effects	= 114 mg/m <sup>3</sup>
	Consumers	Ingestion	Long-term systemic effects	= 87 mg/kg

### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Ethanol	Fresh water	= 0,96 mg/l
	Fresh water sediment	= 3,6 mg/kg
	Marine water	= 0,79 mg/l
	Soil	= 0,36 mg/kg
	Intermittent use/release	= 2,75 mg/l
	Sewage Treatment Systems	= 580 mg/l
	Oral	= 720 mg/kg

## 8.2 Exposure controls

### Engineering measures

Local exhaust  
Emergency sprinkling nozzle  
Use only appropriately classified electrical equipment and powered industrial trucks.

### Personal protective equipment

Eye protection : Safety glasses with side-shields

### Hand protection

Material : Nitrile rubber  
Break through time : 480 min  
Glove thickness : 0,43 mm

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Directive	:	Protective gloves against chemicals and micro-organisms
Protective index	:	Class 6
Skin and body protection	:	Laboratory: laboratory coat; factory: disposable Overall.
Respiratory protection	:	No personal respiratory protective equipment normally required. Breathing apparatus needed only when aerosol or mist is formed. Respiratory protection ABEK2
Protective measures	:	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Only use protective equipment in accordance with national/international regulations. Follow the national regulations about wearing personal protective equipment and the warranty given by the manufacturer for the safe function.

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### SECTION 9: Physical and chemical properties

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

Appearance	:	liquid
Colour	:	light amber
Odour	:	alcohol-like
Odour Threshold	:	No data available
pH	:	5,2
Melting point/range	:	Not applicable
Boiling point/boiling range	:	172 °C
Flash point	:	40 °C(1.013 hPa) Method: ISO 3679
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	No data available

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Relative vapour density	:	No data available
Relative density	:	No data available
Bulk density	:	Not applicable
Solubility(ies)		
Water solubility	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No decomposition if used as directed.
Viscosity		
Viscosity, dynamic	:	No data available
Explosive properties	:	Not tested
Oxidizing properties	:	No data available

### 9.2 Other information

Self-ignition	:	No data available
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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

Hazardous reactions	:	No data available
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### 10.4 Conditions to avoid

Conditions to avoid	:	Extremes of temperature and direct sunlight.
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### 10.5 Incompatible materials

Materials to avoid	:	No data available
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### 10.6 Hazardous decomposition products

No data available



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### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

##### Acute toxicity

Harmful if swallowed.

##### Product:

- |                           |   |   |
|---------------------------|---|---|
| Acute oral toxicity       | : | Acute toxicity estimate: 970 mg/kg<br>Method: Calculation method  |
| Acute inhalation toxicity | : | Acute toxicity estimate: > 5 mg/l<br>Exposure time: 4 h<br>Test atmosphere: dust/mist<br>Method: Calculation method |
| Acute dermal toxicity     | : | Acute toxicity estimate: > 2.000 mg/kg<br>Method: Calculation method  |

##### Components:

##### **Fipronil:**

- |                           |   |   |
|---------------------------|---|---|
| Acute oral toxicity       | : | LD50 (Rat): 97 mg/kg<br>Assessment: The component/mixture is toxic after single ingestion.  |
| Acute inhalation toxicity | : | LC50 (Rabbit): 0,68 mg/l<br>Exposure time: 4 h<br>Test atmosphere: dust/mist<br>Assessment: The component/mixture is toxic after short term inhalation. |
| Acute dermal toxicity     | : | LD50 (Rat): 354 mg/kg<br>Assessment: The component/mixture is toxic after single contact with skin.   |

##### **ethanol:**

- |                           |   |   |
|---------------------------|---|---|
| Acute oral toxicity       | : | LD50 (Rat): = 10.470 mg/kg<br>Method: OECD Test Guideline 401   |
| Acute inhalation toxicity | : | LC50 (Rat): = 124,7 mg/l<br>Exposure time: 4 h<br>Test atmosphere: dust/mist<br>Method: OECD Test Guideline 403 |
| Acute dermal toxicity     | : | Remarks: No data available  |

##### **Skin corrosion/irritation**

Not classified based on available information.

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### Components:

#### **Fipronil:**

Species: Rabbit  
Exposure time: 4 h  
Method: OECD Test Guideline 404  
Result: No skin irritation

#### **ethanol:**

Species: Rabbit  
Method: OECD Test Guideline 404  
Result: No skin irritation

#### **Serious eye damage/eye irritation**

Not classified based on available information.

### Components:

#### **Fipronil:**

Species: Rabbit  
Method: OECD Test Guideline 405  
Result: No eye irritation  
Remarks: No data available

#### **ethanol:**

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

#### **Respiratory or skin sensitisation**

##### **Skin sensitisation**

Not classified based on available information.

##### **Respiratory sensitisation**

Not classified based on available information.

### Components:

#### **Fipronil:**

Test Type: Maximisation Test  
Species: Guinea pig  
Method: OECD Test Guideline 406  
Result: Does not cause skin sensitisation.

#### **ethanol:**

Species: Guinea pig  
Method: OECD Test Guideline 406  
Result: Did not cause sensitisation on laboratory animals.

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### Germ cell mutagenicity

Not classified based on available information.

### Components:

#### **Fipronil:**

Genotoxicity in vitro : Test system: Salmonella typhimurium  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative

Test system: Escherichia coli  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative

Test Type: Cytogenetic assay  
Test system: Human lymphocytes  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 473  
Result: negative

Test Type: Chromosomal aberration test  
Test system: V79 cells (Chinese hamster)  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 473  
Result: negative

Test Type: Mammalian cell gene mutation assay  
Test system: V79 cells (Chinese hamster)  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 476  
Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test  
Species: Mouse (male and female)  
Application Route: Oral  
Result: negative

Test Type: Unscheduled DNA synthesis  
Species: Rat (male)  
Application Route: Oral  
Result: negative

#### **ethanol:**

Genotoxicity in vitro : Test Type: Ames-test  
Test system: Salmonella typhimurium  
Method: OECD Test Guideline 471  
Result: negative

Test Type: Mouse lymphoma assay  
Test system: mouse lymphoma cells  
Method: OECD Test Guideline 476  
Result: negative

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Genotoxicity in vivo : Remarks: No data available

### **Carcinogenicity**

Not classified based on available information.

### **Components:**

#### **Fipronil:**

Application Route: Oral  
0,06 mg/kg bw/day

#### **ethanol:**

Remarks: No data available

### **Reproductive toxicity**

Not classified based on available information.

### **Components:**

#### **Fipronil:**

Effects on fertility : Remarks: No data available

Effects on foetal development : Species: Rat  
General Toxicity Maternal: NOAEL: 4 mg/kg body weight  
Developmental Toxicity: NOAEL: 20 mg/kg body weight

#### **ethanol:**

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

### **STOT - single exposure**

Not classified based on available information.

### **Components:**

#### **Fipronil:**

Remarks: No data available

#### **ethanol:**

Remarks: No data available

### **STOT - repeated exposure**

Causes damage to organs through prolonged or repeated exposure.

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### Components:

#### **Fipronil:**

Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 1.

#### **ethanol:**

Remarks: No data available

### **Repeated dose toxicity**

### Components:

#### **Fipronil:**

Species: Rat  
Application Route: Oral  
Exposure time: 13 weeks  
Dose: 1,5,30,300 ppm

#### **Aspiration toxicity**

Not classified based on available information.

### Components:

#### **Fipronil:**

No data available

#### **ethanol:**

No data available

### **Further information**

### Components:

#### **Fipronil:**

Remarks: No data available

#### **ethanol:**

Remarks: Evaporation of solvents may cause irritation to eyes and mucous membranes.

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## SECTION 12: Ecological information

### 12.1 Toxicity

### Components:

#### **Fipronil:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0,248 mg/l  
Exposure time: 96 h

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- LC50 (Lepomis macrochirus (Bluegill sunfish)): 0,0852 mg/l  
Exposure time: 96 h
- NOEC (Lepomis macrochirus (Bluegill sunfish)): 0,0432 mg/l  
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,190 mg/l  
Exposure time: 48 h
- Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): 0,068 mg/l  
End point: Growth rate  
Exposure time: 96 h  
Method: OECD Test Guideline 201
- NOEC (Desmodesmus subspicatus (green algae)): 0,04 mg/l  
End point: Growth rate  
Exposure time: 96 h  
Method: OECD Test Guideline 201
- EC50 (Anabaena flos-aquae (cyanobacterium)): > 0,17 mg/l  
End point: Growth rate  
Exposure time: 120 h
- NOEC (Anabaena flos-aquae (cyanobacterium)): 0,17 mg/l  
End point: Growth rate  
Exposure time: 120 h
- EC50 (Selenastrum capricornutum (green algae)): > 0,14 mg/l  
End point: Growth rate  
Exposure time: 120 h
- NOEC (Selenastrum capricornutum (green algae)): 0,14 mg/l  
End point: Growth rate  
Exposure time: 120 h
- M-Factor (Acute aquatic toxicity) : 10
- Toxicity to microorganisms : EC50 (activated sludge): > 1.000 mg/l  
Exposure time: 3 h  
Method: OECD Test Guideline 209
- Toxicity to fish (Chronic toxicity) : NOEC: 0,015 mg/l  
Exposure time: 90 d  
Species: Oncorhynchus mykiss (rainbow trout)  
Method: OECD Test Guideline 210
- Lowest observed effect concentration: 0,026 mg/l  
Exposure time: 90 d  
Species: Oncorhynchus mykiss (rainbow trout)  
Method: OECD Test Guideline 210
- Toxicity to daphnia and other : NOEC: 5 - 20 µg/l

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aquatic invertebrates (Chronic toxicity) : End point: Immobilization  
Exposure time: 21 d  
Species: Daphnia (water flea)  
Test Type: flow-through test  
Method: Daphnia sp., Reproduction Test.

M-Factor (Chronic aquatic toxicity) : 10

Toxicity to soil dwelling organisms : Test Type: artificial soil  
LC50: > 1.000 mg/kg  
Exposure time: 14 d  
Species: 'Eisenia foetida'  
Method: Earthworm, Acute Toxicity Test.

Toxicity to terrestrial organisms : LD50: 0,00000417  
Exposure time: 48 d  
End point: Acute oral toxicity  
Species: Apis mellifera (bees)

### ethanol:

Toxicity to fish : LC50 (golden orfe): = 8.140 mg/l  
Exposure time: 48 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): = 9.268 - 14.221 mg/l  
Exposure time: 48 h

Toxicity to algae : EC5 (Scenedesmus quadricauda (Green algae)): = 5.000 mg/l  
Exposure time: 7 d

Toxicity to microorganisms : EC5 (Pseudomonas putida): = 6.500 mg/l  
Exposure time: 16 h

Toxicity to fish (Chronic toxicity) : Remarks: No data available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: No data available

## 12.2 Persistence and degradability

### Components:

#### Fipronil:

Biodegradability : Result: not rapidly degradable  
Biodegradation: 47 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B

#### ethanol:

Biodegradability : Result: Readily biodegradable.

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Biodegradation: 94 %  
Method: OECD Test Guideline 301E

Biochemical Oxygen Demand (BOD) : 930 - 1.670 mg/g  
Incubation time: 5 d

Chemical Oxygen Demand (COD) : 1,99 mg/g

ThOD : 2.100 mg/g

### 12.3 Bioaccumulative potential

#### Components:

##### **Fipronil:**

Bioaccumulation : Exposure time: 14 d  
Bioconcentration factor (BCF): 321  
Remarks: No bioaccumulation is to be expected (log Pow <= 4).

Partition coefficient: n-octanol/water : log Pow: 3,5 - 4,0 (20 °C)

##### **ethanol:**

Bioaccumulation : Remarks: No bioaccumulation is to be expected (log P(o/w)<1).

Partition coefficient: n-octanol/water : log Pow: -0,32

### 12.4 Mobility in soil

#### Components:

##### **Fipronil:**

Distribution among environmental compartments : Remarks: No data available

##### **ethanol:**

Distribution among environmental compartments : Remarks: No data available

### 12.5 Results of PBT and vPvB assessment

#### Product:

Assessment : 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..



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### 12.6 Other adverse effects

#### Components:

##### **Fipronil:**

Additional ecological information : No data available

##### **ethanol:**

Adsorbed organic bound halogens (AOX) : Remarks: No data available

Additional ecological information : No data available

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : Dispose of in accordance with local regulations.

Contaminated packaging : Packs that cannot be cleaned should be disposed of in the same manner as the contents.  
Uncontaminated packaging can be recycled.

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## SECTION 14: Transport information

### 14.1 UN number

ADR : UN 1170  
RID : UN 1170  
IMDG : UN 1170  
IATA : UN 1170

### 14.2 UN proper shipping name

ADR : ETHYL ALCOHOL SOLUTION  
RID : ETHYL ALCOHOL SOLUTION  
IMDG : ETHYL ALCOHOL SOLUTION  
IATA : Ethyl alcohol solution

### 14.3 Transport hazard class(es)

ADR : 3  
RID : 3  
IMDG : 3  
IATA : 3

### 14.4 Packing group

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### ADR

Packing group : III  
Classification Code : F1  
Hazard Identification Number : 30  
Labels : 3  
Tunnel restriction code : (D/E)

### RID

Packing group : III  
Classification Code : F1  
Hazard Identification Number : 30  
Labels : 3

### IMDG

Packing group : III  
Labels : 3  
EmS Code : F-E, S-D

### IATA (Cargo)

Packing instruction (cargo aircraft) : 366  
Packing instruction (LQ) : Y344  
Packing group : III  
Labels : Flammable Liquids

### IATA (Passenger)

Packing instruction (passenger aircraft) : 355  
Packing instruction (LQ) : Y344  
Packing group : III  
Labels : Flammable Liquids

## 14.5 Environmental hazards

### ADR

Environmentally hazardous : yes

### RID

Environmentally hazardous : yes

### IMDG

Marine pollutant : yes

## 14.6 Special precautions for user

Not applicable

## 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

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## SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : Not applicable

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- REACH - List of substances subject to authorisation (Annex XIV) : Not applicable
- Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable
- Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable
- Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Fipronil
- REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : See Annex XVII to Regulation (EC) no 1907/2006 for Conditions of restriction

E1

P5c

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

		Quantity 1	Quantity 2
E1	ENVIRONMENTAL HAZARDS	100 t	200 t
P5c	FLAMMABLE LIQUIDS	5.000 t	50.000 t

Water contaminating class (Germany) : WGK 3 highly water endangering

TA Luft List (Germany) : Total dust:  
Not applicable  
Inorganic substances in powdered form:  
Not applicable  
Inorganic substances in vapour or gaseous form:  
Not applicable  
Organic Substances:  
portion Class 1: 10 %

Carcinogenic substances:  
Not applicable  
Mutagenic:  
Not applicable  
Toxic to reproduction:  
Not applicable

### Other regulations:

The product is subject to the supply restrictions of the Ordinance on the Prohibition of Chemicals.

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

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### The components of this product are reported in the following inventories:

REACH	:	Not in compliance with the inventory
DSL	:	This product contains the following components that are not on the Canadian DSL nor NDSL.  Fipronil
AICS	:	Not in compliance with the inventory
NZIoC	:	Not in compliance with the inventory
ENCS	:	Not in compliance with the inventory
ISHL	:	Not in compliance with the inventory
KECI	:	On the inventory, or in compliance with the inventory
PICCS	:	Not in compliance with the inventory
IECSC	:	Not in compliance with the inventory
TCSI	:	On the inventory, or in compliance with the inventory
TSCA	:	Not On TSCA Inventory

### 15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

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## SECTION 16: Other information

### Full text of H-Statements

H225	:	Highly flammable liquid and vapour.
H301	:	Toxic if swallowed.
H311	:	Toxic in contact with skin.
H319	:	Causes serious eye irritation.
H331	:	Toxic if inhaled.
H372	:	Causes damage to organs through prolonged or repeated exposure.
H400	:	Very toxic to aquatic life.
H410	:	Very toxic to aquatic life with long lasting effects.

### Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Acute aquatic toxicity
Aquatic Chronic	:	Chronic aquatic toxicity
Eye Irrit.	:	Eye irritation
Flam. Liq.	:	Flammable liquids
STOT RE	:	Specific target organ toxicity - repeated exposure
DE TRGS 900	:	Germany. TRGS 900 - Occupational exposure limit values.

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DE TRGS 900 / AGW : Time Weighted Average

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Further information

Training advice : Provide adequate information, instruction and training for operators.

Other information : Vertical lines in the left hand margin indicate an amendment from the previous version.

Sources of key data used to compile the Safety Data Sheet : The specifications are based on own tests and/or literature data.

### Classification of the mixture:

Flam. Liq. 3	H226
Acute Tox. 4	H302
STOT RE 1	H372
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

### Classification procedure:

Based on product data or assessment
Calculation method
Calculation method
Calculation method
Calculation method

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DE / EN