

# SAFETY DATA SHEET



## Advantage II

Version 1.0      Revision Date: 06/19/2020      SDS Number: 122000001561      Date of last issue: -  
Date of first issue: 19.06.2020

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### SECTION 1. IDENTIFICATION

#### Product information

Product Name : Advantage II  
SDS Number : 122000001561

Use : veterinary medicine

#### Company

Elanco Canada Ltd.  
150 Research Lane  
Suite 120  
Guelph, ON N1G 4T2  
CANADA  
1-800-265-5475  
elanco\_sds@elanco.com

**In case of emergency:** CHEMTREC International: +1 703-527-3887 (24 hours)


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### SECTION 2. HAZARDS IDENTIFICATION

#### GHS classification in accordance with the Hazardous Products Regulations

Acute toxicity (Oral) : Category 4  
Acute toxicity (Inhalation) : Category 4  
Eye irritation : Category 2A

#### GHS label elements

Hazard pictograms : 

Signal word : Warning

Hazard statements : H302 + H332 Harmful if swallowed or if inhaled.  
H319 Causes serious eye irritation.

Precautionary statements : **Prevention:**  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

**Response:**  
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

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### Other hazards

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

### Components

Chemical name	CAS-No.	Concentration (% w/w)
Benzyl alcohol	100-51-6	70,66
Propylene carbonate	108-32-7	15,08
Imidacloprid	138261-41-3	9,14

## 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 reactions occur, contact 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 : High volume water jet

Specific hazards during fire-fighting : 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 : In the event of fire, wear self-contained breathing apparatus.

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for firefighters

### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Use with adequate ventilation.  
No special precautions required.
- Methods and materials for containment and cleaning up : Suppress (knock down) gases/vapours/mists with a water spray jet.  
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Place in closed containers. Label for proper disposal.

### SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : No special protective measures against fire required.
- Advice on safe handling : Industrial uses:  
Avoid formation of aerosol.  
Use with local exhaust ventilation.  
Avoid contact with skin, eyes and clothing.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Imidacloprid	138261-41-3	Bayer OES	0,7 mg/m <sup>3</sup>	TRGS901

#### Personal protective equipment

- Respiratory protection : Recommended Filter type:  
Organic vapor with prefilter  
  
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 exter-

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nal use on the skin please read the label and the package leaflet.

Wear suitable protective equipment.

Please consult label for end-user requirements.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	:	solution
Colour	:	yellow, brownish
Odour	:	weak, characteristic
pH	:	neutral
Melting point / range	:	< -60 °C Method: ISO 3016
Boiling point/boiling range	:	103 °C Method: DIN 53171
Flash point	:	> 115 °C  Method: ISO 2719
Vapour pressure	:	38 hPa (20 °C) Method: Regulation (EC) No. 440/2008, Annex, A.4
Density	:	1,096 g/cm <sup>3</sup> (20 °C) Method: DIN 51757
Auto-ignition temperature	:	415 °C Method: DIN 51794
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	6,606 mPa.s ( 20 °C) Method: DIN 53019/1
Viscosity, kinematic	:	6,027 mm <sup>2</sup> /s ( 20 °C) Method: DIN 51562
Flow time	:	< 30 s Cross section: 3 mm Method: ISO 2431
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Impact sensitivity	:	No data available
Minimum ignition energy	:	No data available

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**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

Incompatible materials : Oxidizing agents

Hazardous decomposition products : Hydrogen cyanide (hydrocyanic acid)  
Hydrogen chloride gas  
Nitrogen oxides (NOx)  
Carbon oxides

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**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity****Product:**

Acute oral toxicity : LD50 (Rat, female): 1.000 mg/kg  
LD50 (Rat, male): 1.283 mg/kg

Acute inhalation toxicity : Acute toxicity estimate (ATE): 2,05 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist/aerosol  
Method: Calculation method

Acute dermal toxicity : LD50 (Rat): > 5.000 mg/kg  
Assessment: No adverse effect has been observed in acute toxicity tests.

**Components:****Benzyl alcohol:**

Acute oral toxicity : LD50 (Rat, male): 1.620 mg/kg  
Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity : Assessment: The component/mixture is moderately toxic after short term inhalation.

**Propylene carbonate:**

Acute oral toxicity : LD50 (Rat): 32.100 mg/kg  
Assessment: No adverse effect has been observed in acute toxicity tests.

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Acute inhalation toxicity : Exposure time: 8 h  
Assessment: No adverse effect has been observed in acute toxicity tests.  
Remarks: An LC50/inhalation/8h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.

Acute dermal toxicity : LD50 (Rabbit): > 20.000 mg/kg  
Assessment: No adverse effect has been observed in acute toxicity tests.

**Imidacloprid:**

Acute oral toxicity : LD50 (Rat): 424 mg/kg  
Method: OECD 401

Acute inhalation toxicity : LC50 (Rat): > 5,323 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist/aerosol  
Method: OECD 403

Acute dermal toxicity : LD50 (Rat): > 5.000 mg/kg

**Skin corrosion/irritation****Product:**

Species : Rabbit  
Result : Mild skin irritation

**Components:****Benzyl alcohol:**

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

**Propylene carbonate:**

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

**Imidacloprid:**

Species : Rabbit  
Result : No skin irritation

**Serious eye damage/eye irritation****Product:**

Species : Rabbit  
Result : Moderate eye irritation

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**Components:****Benzyl alcohol:**

Species : Rabbit  
Result : Irritation to eyes, reversing within 7 days  
Method : OECD 405

**Propylene carbonate:**

Species : Rabbit  
Result : Eye irritation  
Method : OECD 405

**Imidacloprid:**

Species : Rabbit  
Result : No eye irritation

**Respiratory or skin sensitisation****Product:**

Test Type : Skin sensitisation  
Species : Guinea pig  
Result : Did not cause sensitisation on laboratory animals.

**Components:****Benzyl alcohol:**

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

**Propylene carbonate:**

Result : Does not cause skin sensitisation.

**Imidacloprid:**

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:****Benzyl alcohol:**

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

Genotoxicity in vivo : Result: No indication of mutagenic effects.

**Propylene carbonate:**

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Genotoxicity in vivo : Result: No indication of mutagenic effects.

**Imidacloprid:**

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

Remarks: In vitro tests did not show mutagenic effects

Genotoxicity in vivo : Result: No indication of mutagenic effects., No evidence of a genotoxic effect.

**Carcinogenicity****Components:****Imidacloprid:**

Result : Animal testing did not show any carcinogenic effects.

**Reproductive toxicity****Components:****Imidacloprid:****STOT - single exposure****Components:****Benzyl alcohol:**

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

**STOT - repeated exposure****Components:****Benzyl alcohol:**

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

**Imidacloprid:**

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

**Repeated dose toxicity****Components:****Benzyl alcohol:**

Species : Rat  
NOAEL : 400 mg/kg  
Exposure time : 90-day



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### Further information

#### Components:

##### **Benzyl alcohol:**

- Remarks : Dermal absorption possible
- Remarks : If inhaled:  
irritations  
Shortness of breath  
Cough
- Remarks : If swallowed  
Vomiting  
Nausea  
Irritation of mucous membranes in the mouth, throat, gullet  
and gastro-intestinal tract after swallowing.
- Remarks : Systemic toxicity  
Headache  
Nausea  
CNS disorders  
Ataxia (uncontrolled movements)  
Unconsciousness  
cessation of breathing

##### **Imidacloprid:**

- Pharmaceutic effects  
Remarks : Insecticide

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## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Components:

##### **Benzyl alcohol:**

- Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 10 mg/l  
Exposure time: 96 h  
Test Type: Acute Fish toxicity
- Toxicity to microorganisms : EC50 (Photobacterium phosphoreum): 71,4 mg/l  
Exposure time: 0,5 h

#### **Ecotoxicology Assessment**

- Acute aquatic toxicity : Toxic to aquatic life.

##### **Propylene carbonate:**

- Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): ca. 5.300 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: DIN 38412

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Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 500 mg/l  
Exposure time: 48 h  
Test Type: static test

Toxicity to microorganisms : EC20 (Activated sludge micro-organism): > 800 mg/l  
Exposure time: 0,5 h  
Method: ISO 8192

**Ecotoxicology Assessment**

Acute aquatic toxicity : slightly hazardous to water

**Imidacloprid:**

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 237 mg/l  
Exposure time: 96 h  
Test Type: Acute Fish toxicity

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 85 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l  
Exposure time: 72 h

EC50 (Desmodesmus subspicatus (green algae)): > 10 mg/l  
Exposure time: 72 h

Toxicity to microorganisms : EC50 (Activated sludge micro-organism): > 10.000 mg/l  
Method: OECD 209

**Persistence and degradability****Components:****Benzyl alcohol:**

Biodegradability : Result: rapidly biodegradable  
Biodegradation: 92 - 96 %  
Exposure time: 28 d  
Method: OECD 301 C

**Propylene carbonate:**

Biodegradability : Result: rapidly biodegradable

BOD/ThOD : 86 %

Dissolved organic carbon (DOC) : 90 - 100 %  
Method: ISO 7827

**Imidacloprid:**

Stability in water : Degradation half life: > 1 a (25 °C) pH: 4  
Hydrolysis: at 25 °C

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Degradation half life: > 1 a (25 °C) pH: 7  
Hydrolysis: at 25 °C

Degradation half life: ca. 1 h (25 °C) pH: 9  
Hydrolysis: at 25 °C

### Bioaccumulative potential

#### Components:

##### **Benzyl alcohol:**

Partition coefficient: n-octanol/water : log Pow: 1,05

##### **Propylene carbonate:**

Bioaccumulation : Remarks: Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

Partition coefficient: n-octanol/water : log Pow: -0,48 (25 °C)

##### **Imidacloprid:**

Bioaccumulation : Remarks: Low potential for bioaccumulation

Partition coefficient: n-octanol/water : log Pow: 0,57 (21 °C)  
Method: OECD 107

### Mobility in soil

No data available

### Other adverse effects

#### Product:

Additional ecological information : Do not allow to enter surface waters or groundwater.

#### Components:

##### **Propylene carbonate:**

Adsorbed organic bound halogens (AOX) : Remarks: Product does not contain any organic halogens.

##### **Imidacloprid:**

Adsorbed organic bound halogens (AOX) : Remarks: The product contains organic halogens.

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## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues : If discarded in its purchased form, this product would not be a

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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.

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### SECTION 14. TRANSPORT INFORMATION

#### International Regulations

##### IATA-DGR

UN/ID No.	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PYRIPROXYFEN)
Class	:	9
Packing group	:	III
Labels	:	9
Environmentally hazardous	:	yes

##### IMDG-Code

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PYRIPROXYFEN)
Class	:	9
Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-F
Marine pollutant	:	yes

#### 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

#### Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

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### SECTION 15. REGULATORY INFORMATION

**NPRI Components** : 2,6-Di-tert-butyl-p-cresol

#### International Regulations

Montreal Protocol (Ozone Depleting Substances) : Not applicable

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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.

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## SECTION 16. OTHER INFORMATION

### Full text of other abbreviations

TRGS901 : TRGS 901, Explanations and Basis for Exposure Limits in the Workplace Air  
TRGS901 / Bayer OES : BOES = Bayer Occupational Exposure Standard

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