

**SAFETY DATA SHEET**  
**Advantage II**

122000001561

Version 2.0

Revision Date 11/06/2015

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****Product information**

**Product Name:** Advantage II  
**SDS Number:** 122000001561

**Use** : veterinary medicine

**Company**

BAYER HEALTHCARE LLC  
 Animal Health Division  
 12707 Shawnee Mission Parkway  
 (West 63rd)  
 Shawnee, KS 66216-1846  
 UNITED STATES OF AMERICA  
 (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**

**Colour:** yellow, brownish **Form:** solution **Odour:** weak, characteristic.

**GHS Classification:**

**Acute toxicity (Oral)** : Category 4  
**Acute toxicity (Inhalation)** : Category 4  
**Serious eye damage** : Category 1

**GHS Label element:**

**Hazard pictograms** :  

**Signal word** : **Danger**

**Hazard statements** : H302 + H332 Harmful if swallowed or if inhaled  
 H318 Causes serious eye damage.

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**Precautionary statements**

H410 Very toxic to aquatic life with long lasting effects.

**Prevention:**  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ eye protection/ face protection.

**Response:**  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER or doctor/ physician.  
P391 Collect spillage.

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Weight percent	Components	CAS-No.
9.14%	Imidacloprid	138261-41-3
70.66%	Benzyl alcohol	100-51-6
15.08%	Propylene carbonate	108-32-7

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**4. FIRST AID MEASURES**

**General advice:** Take off all contaminated clothing immediately.

**If inhaled:** Remove to fresh air. Call a physician immediately.

**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

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**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 firefighting:** Fire may cause the release of: Hydrogen cyanide (hydrocyanic acid) Hydrogen chloride gas Nitrogen oxides (NOx) Carbon oxides

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

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

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**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions:** Use personal protective equipment. Use adequate ventilation.

**Methods for 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.

**Additional advice:** No special precautions required.

**Further Accidental Release Notes**      No special precautions required.

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**7. HANDLING AND STORAGE****Handling:**

Avoid formation of aerosol. Only handle product with local exhaust ventilation. Avoid contact with skin, eyes and clothing.

**No special protective measures against fire required.**

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Benzyl alcohol (100-51-6)**

US. OARS. WEELs Workplace Environmental Exposure Level Guide  
Time Weighted Average (TWA): 10 ppm, 44.20 mg/m3

**Respiratory protection:**

Recommended Filter type: Organic vapor with prefilter

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None required for consumer use of this product.

**Hand protection:**

Chemically resistant gloves.

None required for consumer use of this product.

**Eye protection:**

Safety glasses

None required for consumer use of this product.

**Other protective measures:**

Wear suitable protective equipment.

Please consult label for end-user requirements.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Form:	solution	
Colour:	yellow, brownish	
Odour:	weak, characteristic	
Odour Threshold:	No applicable information is available	
Melting point:	< -60 °C	ISO 3016
Boiling point/boiling range:	103 °C	DIN 53171
Density:	1.096 g/cm <sup>3</sup> at 68 °F (20 °C)	DIN 51757
Bulk density:	No applicable information is available	
Vapour pressure:	38 hPa at 68 °F (20 °C)	EC A.4
Viscosity, dynamic:	6.606 mPa.s at 68 °F (20 °C)	DIN 53019/1
Viscosity, kinematic:	6.027 mm <sup>2</sup> /s at 68 °F (20 °C)	DIN 51562
Flow time:	< 30 s at 3 mm nozzle	ISO 2431
Surface tension:	No applicable information is available	
Miscibility with water:	immiscible	
Water solubility:	No applicable information is available	
pH:	neutral	
Relative density:	No applicable information is available	
Partition coefficient:	No applicable information is available	
Solubility(ies):	No applicable information is available	
Flash point:	> 239 °F (> 115 °C)	ISO 2719
Flammability (solid, gas):	No applicable information is available	
Ignition temperature:	779 °F (415 °C)	DIN 51794
Explosion limits:	No applicable information is available	

**10. STABILITY AND REACTIVITY**

**Conditions to avoid:** Do not allow product to come in contact with:

Heat

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**Materials to avoid:** Oxidizing agents

**Hazardous reactions:** No data available

**Thermal decomposition:**

No data available

**Hazardous decomposition products:**

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

**Oxidizing properties:**

No statements available.

**Impact sensitivity:**

No data available

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## 11. TOXICOLOGICAL INFORMATION

**Other information on toxicity:**

Benzyl alcohol

Dermal absorption possible

If inhaled: irritations, Shortness of breath, Cough

If swallowed: Vomiting, Nausea, Irritation of mucous membranes in the mouth, throat, gullet and gastro-intestinal tract after swallowing.

Systemic toxicity headaches, Nausea, CNS disorders, Convulsions, Unconsciousness, cessation of breathing

**Acute oral toxicity:**

LD50 Rat , female : 1,000 mg/kg

LD50 Rat , male : 1,283 mg/kg

Harmful if swallowed.

**Acute inhalation toxicity:**

LC50 Rat: > 2.5 mg/l

**Acute dermal toxicity:**

LD50 Rat: > 5,000 mg/kg

The substance or mixture has no acute dermal toxicity

**Skin irritation:**

Rabbit

Result: Slightly irritating

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**Eye irritation:**

Result: Irreversible effects on the eye

Method: Expert judgement

Rabbit

Result: Moderate eye irritation

**Sensitisation:**

Skin sensitization guinea pig

Result: Did not cause sensitisation on laboratory animals.

**Subacute, subchronic and prolonged toxicity:**

Benzyl alcohol

NOEL 400 mg/kg, Rat, Exposure time 90-day

**Genotoxicity in vitro:**

Imidacloprid

Ames test

Result: negative

In vitro tests did not show mutagenic effects

Benzyl alcohol

Ames test

Result: negative

pyriproxyfen

Ames test

Result: negative

V79-HPRT Forward Mutation Assay

Result: negative

In vitro Cytogenetic Test

Result: negative

Unscheduled DNA Synthesis Test

Result: negative

**Genotoxicity in vivo:**

Imidacloprid

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

Benzyl alcohol

Result: No indication of mutagenic effects.

Propylene carbonate

Result: No indication of mutagenic effects.

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pyriproxyfen

Micronucleus test, Mouse

Result: No evidence of a genotoxic effect.

**Carcinogenicity:**

Imidacloprid

Result: Animal testing did not show any carcinogenic effects.

pyriproxyfen

Rat:

Result: negative

**Reproductive toxicity:**

Imidacloprid

Result: Animal studies have produced no evidence of toxic effects on reproduction.

pyriproxyfen

Result: Animal studies have produced no evidence of toxic effects on reproduction.

**Teratogenicity:**

Imidacloprid

Result: Animal studies have produced no evidence of harmful effects on development.

Benzyl alcohol

Result: Did not show teratogenic effects in animal experiments.

pyriproxyfen

Rat: Result: Did not show teratogenic effects in animal experiments.

Rabbit: Result: Did not show teratogenic effects in animal experiments.

**Pharmaceutic effects:**

Imidacloprid

Insecticide

pyriproxyfen

Insecticide

**Carcinogenicity:**

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

**STOT - single exposure:****Components:****100-51-6 :**

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

**STOT - repeated exposure:****Components:****138261-41-3 :**

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

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exposure.

**100-51-6 :**

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

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**12. ECOLOGICAL INFORMATION****General advice:**

Do not allow to enter surface waters or groundwater.

**Toxicity to fish:**

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

Benzyl alcohol

Acute Fish toxicity: LC50 10 mg/l

Test species: Lepomis macrochirus (Bluegill) Duration of test: 96 h

Propylene carbonate

static test: LC50 ca. 5,300 mg/l

Test species: Leuciscus idus (Golden orfe) Duration of test: 96 h

Method: DIN 38412

pyriproxyfen

Acute Fish toxicity: LC50 0.33 - 0.37 mg/l

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

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

Imidacloprid

EC50 0.055 mg/l

Test species: Hyalella azteca Duration of test: 96 h

Benzyl alcohol

EC50 55 mg/l

Test species: Daphnia magna (Water flea) Duration of test: 24 h

Propylene carbonate

static test EC50 > 500 mg/l

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

pyriproxyfen

EC50 0.4 mg/l

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



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**Toxicity to algae:**

Imidacloprid

EC50 &gt; 100 mg/l

tested on: Pseudokirchneriella subcapitata (green algae) Duration of test: 72 h

EC50 &gt; 10 mg/l

tested on: Desmodesmus subspicatus (green algae) Duration of test: 72 h

Benzyl alcohol

IC50 &gt; 100 mg/l

Duration of test: 72 h

Propylene carbonate

static test &gt; 500 mg/l

tested on: Desmodesmus subspicatus (green algae) Duration of test: 72 h

Method: DIN 38412

pyriproxyfen

IC50 0.064 mg/l

tested on: Pseudokirchneriella subcapitata (green algae) Duration of test: 72 h

**Toxicity to bacteria:**

Imidacloprid

EC50 &gt; 10,000 mg/l

tested on: activated sludge micro-organism

Method: OECD 209

Benzyl alcohol

EC50 71.4 mg/l

tested on: Photobacterium phosphoreum

Duration of test: 0.5 h

Propylene carbonate

EC20 &gt; 800 mg/l

tested on: activated sludge micro-organism

Duration of test: 0.5 h

Method: ISO 8192

**Biodegradability:**

Benzyl alcohol

92 - 96 %, 28 d rapidly biodegradable

Method: OECD 301 C

Propylene carbonate

rapidly biodegradable

pyriproxyfen

Not readily biodegradable.

Method: OECD 301 D

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**Bioaccumulation:**

Imidacloprid

Low potential for bioaccumulation

Propylene carbonate

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

pyriproxyfen

Bioconcentration factor (BCF)

ca. 1,500

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**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.

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**14. TRANSPORT INFORMATION****Land transport (CFR)**

non-regulated

**US Sea transport (IMDG)**

non-regulated

**US Air transport (ICAO / IATA cargo aircraft only)**

non-regulated

**US Air transport (ICAO / IATA passenger and cargo aircraft)**

non-regulated

**International IATA****UN Number**

3082

**Description of the goods**ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S.  
(PYRIPROXYFEN)**Class**

9

**Packaging group**

III

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**Dangerous goods labels** 9  
**Environmentally hazardous** yes

**International IMDG**

**UN Number** 3082  
**Description of the goods** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
 N.O.S.  
 (PYRIPROXYFEN)  
**Class** 9  
**Packaging group** III  
**IMDG-Labels** 9  
**EmS Number** F-A  
**Marine pollutant** yes

**15. REGULATORY INFORMATION**

**Other regulations:** No statements available.

**FIFRA Status** This product is registered with the EPA under FIFRA.

**US. Toxic Substances Control Act** This product is excluded from TSCA Regulation under FIFRA Section 3 (2)(B)(ii) when used as a pesticide.

**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

**Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists**

Weight percent	Components	CAS-No.
60 - 100%	Benzyl alcohol	100-51-6

**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.