



## SAFETY DATA SHEET

122000001561

**Advantage II**

Version 1.1

Revision Date 01/06/2011

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

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

**Company**

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

**WARNING!** Colour: yellow, brownish Form: liquid Odour: weak, characteristic.  
May cause respiratory tract irritation. Inhalation may cause nausea or dizziness. May cause eye irritation.

**Hazard Communication (29CFR 1910.1200)****Eye Contact Inhalation Skin Contact**

<b>Acute Inhalation Hazards</b>	May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose. Overexposure to vapor may produce dizziness, drowsiness, or nausea.
<b>Acute Skin Hazards</b>	May cause slight irritation.
<b>Acute Eye Hazards</b>	May cause irritation with symptoms of reddening, tearing and stinging.
<b>Acute Ingestion Hazards</b>	Moderately toxic by ingestion.
<b>Chronic Effects of Exposure</b>	Prolonged contact with this product may cause defatting of the skin due to the solvent component in the product.

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**Medical Conditions Aggravated by Exposure** Eye disorders, Skin disorders, Respiratory tract disorders

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

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Weight percent	Components	CAS-No.
7 - 13%	Imidacloprid	138261-41-3
10 - 30%	Carbonate derivative	
60 - 100%	Alcohol derivative	

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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. FIRE-FIGHTING 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

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

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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:** Keep away from/remove sources of ignition.

**Further Accidental Release Notes**      Keep away from/remove sources of ignition.

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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.

Take measures to prevent the build up of electrostatic charge. Keep away from open flames, hot surfaces and sources of ignition.

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Alcohol derivative**

US. Workplace Environmental Exposure Level (WEEL) Guides  
Time Weighted Average (TWA): 10 ppm, 44 mg/m<sup>3</sup>

**Respiratory protection:**

Recommended Filter type: Organic vapor with prefilter

**Hand protection:**

Chemically resistant gloves.

**Eye protection:**

Safety glasses

**Other protective measures:**

Wear suitable protective equipment.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

Colour:	yellow, brownish	
Odour:	weak characteristic	
Melting point:	< -60 °C	ISO 3016
Density:	1.096 g/cm <sup>3</sup> at 68 °F (20 °C)	DIN 51757
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
Miscibility with water:	immiscible	
pH:	neutral	
Partition coefficient (n-octanol/water):	no data available	
Flash point:	> 239 °F (115 °C)	ISO 2719
Ignition temperature:	779 °F (415 °C)	DIN 51794

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**10. STABILITY AND REACTIVITY**

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

**Materials to avoid:** Oxidizing agents

**Hazardous reactions:** None known.

**Thermal decomposition:**

no data available

**Hazardous decomposition products:**

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

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**11. TOXICOLOGICAL INFORMATION**

**Acute oral toxicity:**

LD50 rat , female : 1,732 mg/kg

LD50 rat , female : 1,943 mg/kg

**Acute inhalation toxicity:**

LC50 rat: > 2.415 mg/l

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**Acute dermal toxicity:**  
LD50 rat: > 2,000 mg/kg

**Skin irritation:**  
rabbit  
Result: Slightly irritating

**Eye irritation:**  
rabbit  
Result: Moderately irritating

**Sensitisation:**  
Skin sensitization guinea pig  
Result: Did not cause sensitization on laboratory animals.

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**12. ECOLOGICAL INFORMATION**

**General advice:**  
Do not allow to enter surface waters or groundwater.

**Toxicity to fish:**  
**Toxicity to daphnia and other aquatic invertebrates:**  
Imidacloprid  
EC50 85 mg/l  
Test species: Daphnia magna (Water flea) Duration of test: 48 h

EC50 0.055 mg/l  
Test species: Hyalella azteca Duration of test: 96 h

LC50 0.0552 mg/l  
Test species: Chironomus Riparius (non-biting midge) Duration of test: 24 h

Pyriproxyfen  
EC50 0.4 mg/l  
Test species: Daphnia magna (Water flea) Duration of test: 48 h

Alcohol derivative  
EC50 400 mg/l  
Test species: Daphnia magna (Water flea) Duration of test: 24 h

**Toxicity to algae:**  
Imidacloprid  
EC50 > 100 mg/l  
tested on: Pseudokirchneriella subcapitata (green algae) Duration of test: 72 h

EC50 > 10 mg/l  
tested on: Desmodesmus subspicatus (Green algae) Duration of test: 72 h

Pyriproxyfen  
IC50 0.064 mg/l  
tested on: Pseudokirchneriella subcapitata (green algae) Duration of test: 72 h

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**Toxicity to bacteria:**

Imidacloprid

EC50 &gt; 10,000 mg/l

tested on: activated sludge micro-organism

Method: OECD TG 209

Alcohol derivative

EC50 71.4 mg/l

tested on: Photobacterium phosphoreum

Duration of test: 0.5 h

**Biodegradability:**

Pyriproxyfen

Not readily biodegradable.

Method: OECD TG 301 D

**Bioaccumulation:**

Imidacloprid

Low potential for bioaccumulation

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 (DOT)**

Non-Regulated

**Inland waterway transport**

Non-Regulated

**Railway transport**

Non-Regulated

**Sea transport (IMDG)**

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**Non-Regulated**

Air transport (ICAO / IATA cargo aircraft only)  
Non-Regulated

Air transport (ICAO / IATA passenger and cargo aircraft)  
Non-Regulated

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**15. REGULATORY INFORMATION**

**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%      Alcohol derivative

**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

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**16. OTHER INFORMATION**

**NFPA 704M Rating**

<b>Health</b>	2
<b>Flammability</b>	1
<b>Reactivity</b>	0
<b>Other</b>	

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

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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.