

**SAFETY DATA SHEET**
K9 Advantix II

122000003695

Version 1.3

Revision Date 01/08/2011

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

Product Name: K9 Advantix II
MSDS Number: 122000003695

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 brown Form: liquid Odour: very faint.
May cause eye, skin, and respiratory tract irritation. Inhalation may cause nausea or dizziness. May be harmful if swallowed.

Hazard Communication (29CFR 1910.1200)

Inhalation Skin Absorption Skin Contact Eye Contact

Acute Inhalation Hazards

Expected to be toxic by inhalation. May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose. Overexposure to vapor may produce dizziness, drowsiness, or nausea.

Acute Skin Hazards

May cause slight irritation. Not expected to be a skin sensitizer. Paraesthesia (a tingling or burning sensation on the surface of the skin) may result from skin contact with synthetic pyrethroids and normally subsides without treatment within 24 hours.

Acute Eye Hazards

May cause irritation with symptoms of reddening, tearing and stinging.

Acute Ingestion Hazards

Symptoms of ingestion may include abdominal pain, nausea, vomiting, and diarrhea.

Acute Effects of Exposure

Analysis of chronic feeding studies in both mice and rats with permethrin resulted in the conclusion that permethrin's potential for induction of oncogenicity in experimental animals is low, and that the likelihood of oncogenic effects in humans is nonexistent or extremely low. Chronic exposure to the solvent can cause defatting of the skin. Chronic exposure to organic solvents has been associated with various neurotoxic effects including permanent brain and nervous system damage.

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Weight percent	Components	CAS-No.
7 - 13%	Imidacloprid	138261-41-3
30 - 60%	Permethrin	52645-53-1
0.1 - 0.5%	Pyriproxyfen	95737-68-1
30 - 60%	Amine Derivative	

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

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: Carbon monoxide Carbon dioxide (CO₂) nitrogen oxides (NO_x) Hydrogen cyanide (hydrocyanic acid) Hydrogen chloride gas

Special protective equipment for fire-fighters: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment.

Methods for cleaning up: Cover spilt product with liquid-binding material (sand, silica gel, acid binder, universal binder, hybilat). Take up mechanically and fill into labelled, closable containers.

Additional advice: Keep away from/remove sources of ignition.

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

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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Amine Derivative

US. Workplace Environmental Exposure Level (WEEL) Guides
Time Weighted Average (TWA): 10 ppm, 40 mg/m³

US. Workplace Environmental Exposure Level (WEEL) Guides
Skin designation: Can be absorbed through the skin.

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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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Colour:	yellow brown	
Odour:	very faint	
Density:	1.1360 g/cm ³ at 68 °F (20 °C)	DIN 51757
Vapour pressure:	no data available	
Viscosity, dynamic:	no data available	
Miscibility with water:	immiscible	
pH:	3.0 - 5.5 at 100 g/l	DIN 51369
Partition coefficient (n-octanol/water):	no data available	
Flash point:	185 °F (85 °C)	
Ignition temperature:	not determined	

10. STABILITY AND REACTIVITY

Conditions to avoid: no data available

Materials to avoid: Peroxides, Bases, Strong acids

Hazardous reactions: None known.

Thermal decomposition:

no data available

Hazardous decomposition products:

Carbon monoxide, Carbon dioxide (CO₂)

11. TOXICOLOGICAL INFORMATION

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Acute oral toxicity:

LD50 rat , female : > 2,000 mg/kg

Method: OECD TG 425

Acute inhalation toxicity:

LC50 rat, male: > 2.86 mg/l

Method: OECD Test Guideline 403

LC50 rat, female: > 2.86 mg/l

Method: OECD Test Guideline 403

Acute dermal toxicity:

LD50 rat, male: > 5,000 mg/kg

Method: OECD Test Guideline 402

LD50 rat, female: > 5,000 mg/kg

Method: OECD Test Guideline 402

Skin Irritation:

rabbit

Result: Moderately irritating

Eye Irritation:

rabbit

Result: Moderately irritating

Sensitisation:

Skin sensitization guinea pig

Result: Did not cause sensitization on laboratory animals.

Method: OECD Test Guideline 406

Genotoxicity in vitro:

Imidacloprid

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

Amine Derivative

Bacterial mutagenicity

Result: No indication of mutagenic effects.

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Genotoxicity in vivo:

Pyriproxyfen

Micronucleus test, mouse

Result: genotoxic properties, negative

Amine Derivative

In vivo tests did not show mutagenic effects

Carcinogenicity:

Pyriproxyfen

rat:

Result: negative

Amine Derivative

Result: Animal testing did not show any carcinogenic effects.

Reproductive toxicity:

Pyriproxyfen

Result: Non associated with reproductive risks in animal experiments.

Amine Derivative

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

Developmental toxicity / Teratogenicity:

Pyriproxyfen

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

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

Amine Derivative

Result: Did not show teratogenic effects in animal experiments.

Pharmaceutic effects:

Imidacloprid

Insecticide

Permethrin

Insecticide

Pyriproxyfen

Insecticide

12. ECOLOGICAL INFORMATION

General advice:

Do not allow to enter surface waters or groundwater.

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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

Permethrin

LC50 0.0005 - 0.315 mg/l

Pyriproxyfen

Acute Fish toxicity: LC50 0.33 - 0.37 mg/l

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

Amine Derivative

Acute Fish toxicity: LC50 > 500 mg/l

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

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

Permethrin

EC0 73 µg/l

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

Method: OECD Test Guideline 202

EC0 16 µg/l

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

Method: OECD Test Guideline 202

EC100 > 17 µg/l

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

Method: OECD Test Guideline 202

EC100 171 µg/l

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

Method: OECD Test Guideline 202

EC50 212 µg/l

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

Method: OECD Test Guideline 202

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EC50 37 µg/l

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

Method: OECD Test Guideline 202

Pyriproxyfen

EC50 0.4 mg/l

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

Amine Derivative

LC50 > 1,000 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

Amine Derivative

EC50 > 500 mg/l

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

Toxicity to bacteria:

Imidacloprid

EC50 > 10,000 mg/l

tested on: activated sludge micro-organism

Method: OECD TG 209

Amine Derivative

EC20 > 600 mg/l

Duration of test: 0.5 h

Method: OECD TG 209

Biodegradability:

Permethrin

0 %, 28 d Not readily biodegradable.

Pyriproxyfen

Not readily biodegradable.

Method: OECD TG 301 D

Amine Derivative

> 90 %,

Method: OECD TG 301 E

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Bioaccumulation:

Imidacloprid

Low potential for bioaccumulation

Pyriproxyfen

Bioconcentration factor (BCF)

ca. 1,500

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.

14. TRANSPORT INFORMATION

Land transport (DOT)

Non-Regulated

Inland waterway transport

Non-Regulated

Railway transport

Non-Regulated

Sea transport (IMDG)

Non-Regulated

Air transport (ICAO / IATA cargo aircraft only)

Non-Regulated

Air transport (ICAO / IATA passenger and cargo aircraft)

Non-Regulated

15. REGULATORY INFORMATION

FIFRA Status

US. Toxic Substances Control Act

This product is registered with the EPA under FIFRA.

This product is excluded from TSCA Regulation under FIFRA Section 3 (2)(B)(ii) when used as a pesticide.

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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

Permethrin

Amine Derivative

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.
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30 - 60%	Permethrin	52645-53-1
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30 - 60%	Amine Derivative	
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New Jersey Environmental Hazardous Substances List and/or New Jersey RTK Special Hazardous Substances Lists

Weight percent	Components	CAS-No.
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30 - 60%	Permethrin	52645-53-1
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30 - 60%	Amine Derivative	
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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

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may not be valid for such material used in combination with any other materials or in any process,
unless specified in the text.