SAFETY DATA SHEETS

This SDS packet was issued with item:

078912671

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

078557442 078557459 078557467 078557475 078912666 078912667 078926846 078926847 078926848

The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).

078912668 078912669

MATERIAL SAFETY DATA SHEET

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

TRANSPORTATION EMERGENCY
CALL CHEMTREC..... : (800) 424-9300
INTERNATIONAL ..... : (703) 527-3887

NON-TRANSPORTATION
BAYER EMERGENCY PHONE : (800) 422-9874
BAYER INFORMATION PHONE: (800) 633-3796

Section 1: Product and Company Identification

Product Name: Advantage Multi for Dogs
Material Number: 8891454

Section 2: Composition/Information on Ingredients

HAZARDOUS INGREDIENTS

Ingredient Name/ CAS Number	Exposure Limits	Concentration Min.	Concentration Max.
Aromatic alcohol CAS# is a trade secret	**OSHA (PEL):** Not Established **ACGIH (TLV):** Not Established	60%	100%
Carbonate derivative CAS# is a trade secret	**OSHA (PEL):** Not Established **ACGIH (TLV):** Not Established	10%	30%
Imidacloprid 138261-41-3	**OSHA (PEL):** Not Established **ACGIH (TLV):** Not Established	7%	13%
Moxidectin 113507-06-5	**OSHA (PEL):** Not Established **ACGIH (TLV):** Not Established	1%	5%

Section 3: Hazards Identification

EMERGENCY OVERVIEW

CAUTION! Color: Light tan to light yellow **Form:** Liquid Pipettes **Odor:** Mild
May cause respiratory tract irritation. Inhalation may cause nausea or dizziness. May cause eye irritation. May be harmful if swallowed.

POTENTIAL HEALTH EFFECTS

Route(s) of Entry: Eye Contact, Inhalation, Skin Contact

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

Inhalation Hazards
Acute Inhalation Hazards: May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose. Overexposure to vapor may produce dizziness, drowsiness, or nausea.

Skin Hazards
Acute Skin Hazards: May cause slight irritation.

Eye Hazards
Acute Eye Hazards: May cause irritation with symptoms of reddening, tearing and stinging.

Ingestion Hazards
Acute Ingestion Hazards: Moderately toxic by ingestion.

General Effects of Exposure
Chronic Effects of Exposure: Prolonged contact with this product may cause defatting of the skin due to the solvent component in the product.

Carcinogenic Components:
NTP: None

IARC: None

OSHA: None

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

Section 4: First Aid Measures

First Aid for Eye: Use fingers to ensure that eyelids are separated and that the eye is being irrigated. Get medical attention if irritation develops or persists.

First Aid for Skin: In case of skin contact, wash affected areas with soap and water.

Contact a physician if irritation develops.

First Aid for Inhalation: If inhaled, remove to fresh air. If breathing is difficult, give oxygen. Call a physician.

First Aid for Ingestion: Contact a physician or Poison Control Center. Give two glasses of water for dilution. Avoid alcohol. If ingested, do not induce vomiting unless directed to do so by medical personnel. Do not give anything by mouth to an unconscious person.

Note to Physician: In case of human or animal poisoning, please contact the Poison Control Center at (800)938-3578. Please also notify Bayer at (800)422-9874.

Section 5: Fire Fighting Measures

Flash Point: > 200 °F

Flammable Limits:

Upper Explosion Limit (UEL %): Not Established

Lower Explosion Limit (LEL %): Not Established

Extinguishing Media:

Suitable: Water, Carbon Dioxide, Dry Chemical, Foam

Special Fire Fighting Procedures: Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Do not allow fire fighting water to enter sewer, surface waters, or ground water systems. Equipment and materials used in fighting pesticide fires may become contaminated.

Section 6: Accidental Release Measures

Spill or Leak Procedures: Evacuate and keep unnecessary people out of spill area. Use appropriate personal protective equipment during clean up. Recover uncontaminated product, if possible. Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal. Wash spill area with soap and water. Soil, absorbents, and other materials that are contaminated by the spilled product should be collected for proper disposal. Do not allow spilled material or wash water to enter sewers, surface waters, or groundwater systems.

Section 7: Handling and Storage

Storage Temperature:

Maximum: 100 °F

Shelf Life: Not Established

Special Sensitivity:	Not Established
Handling/Storage Precautions:	Store in a dry place in orginal or waterproof containers. Store separate from food products. Store in an area designated specifically for pesticides. Avoid contact with eyes. Avoid excessive contact with skin or clothing.

Section 8: Exposure Controls/Personal Protection

Personal Protection Equipment

Eye Protection Requirements:	Chemical safety goggles or glasses.
Skin Protection Requirements:	Gloves, long sleeved shirts and pants.
Ventilation Requirements:	Under normal conditions of use, special ventilation is not required.
Respirator Requirements:	A NIOSH approved air purifying respirator with organic vapor cartridges and particulate prefilter can be used to minimize exposure.
Additional Protective Measures:	Emergency showers and eye wash stations should be available. Educate and train employees in the safe use and handling of this product. Follow all label instructions. Launder clothing separately after use. Employees should wash their hands and face before eating, drinking, or using tobacco products.

Section 9: Physical and Chemical Properties

Physical Form:	Liquid
Appearance:	Pipettes
Color:	Light tan to light yellow
Odor:	Mild
Odor Threshold:	Not Established
pH:	Not Applicable
Boiling Point:	Not Established
Melting/Freezing Point:	Not Established
Solubility in Water:	Soluble
Specific Gravity:	1.093 - 1.103 @ 20 °C
Bulk Density:	Not Applicable
Vapor Pressure:	Not Established
Vapor Density:	Not Established

Section 10: Stability and Reactivity

Stability:	Stable
Hazardous Polymerization:	Will not occur
Substances to Avoid:	Oxidizing agents

Conditions to Avoid: Avoid extreme heat.

Decomposition Products: Carbon monoxide, Carbon Dioxide, Oxides of Nitrogen, Hydrogen cyanide, Hydrogen chloride, Propylene Oxide

Section 11: Toxicological Information

Toxicity Data for Advantage Multi for Dogs

Toxicity Data for Aromatic alcohol

Acute oral toxicity: LD50 = 1,230 mg/kg bw (Rat)

Eye Irritation: Moderately irritating (Rabbit)

Skin Irritation: Moderately irritating 24 h, (Rabbit)

Toxicity Data for Carbonate derivative

Acute oral toxicity: LD50 = > 5,000 mg/kg bw (Rat)

Acute dermal toxicity: LD50 = > 5,000 mg/kg bw (Rabbit)

Eye Irritation: Moderately irritating (Rabbit)

Skin Irritation: Moderately irritating (Rabbit)

Sensitization: Non-sensitizer dermal (Human) Patch Test

Mutagenicity: Ames, with/without, negative

Toxicity Data for Imidacloprid

Acute oral toxicity: LD50 = 424 mg/kg bw (Male Rat)

LD50 = 450 - 475 mg/kg bw (Female Rat)

Acute dermal toxicity: LD50 = > 5,000 mg/kg bw (Rat)

Acute inhalation toxicity: > 0.07 mg/L, 4 hrs, aerosol (Rat)

> 5.32 mg/L, 4 hrs, dust/particulate (Rat)

Eye Irritation: Minimally irritating (Rabbit)

Skin Irritation: Non-irritating (Rabbit)

Sensitization: Non-sensitizer (Guinea pig)

Carcinogenicity: Imidacloprid was investigated for carcinogenicity in chronic feeding studies using mice and rats at maximum levels of 2000 and 1800 ppm, respectively. There was no evidence of a carcinogenic potential observed in either species.

Mutagenicity: Imidacloprid was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

Developmental No evidence of embryonic or teratogenic potential for the active

Toxicity/Teratogenicity: ingredient in developmental rats and rabbit toxicity studies. Developmental effects in both sexes were observed only at high doses, in conjunction with material toxicity.

Toxicity to Reproduction/Fertility: Imidacloprid was not a reproductive toxicant in a multigeneration rat study.

Neurotoxicity: Rats showed slight behavioral and activity changes only at the highest dose tested in neurotoxicity studies. No correlating morphol

Toxicity Data for Moxidectin

Acute oral toxicity: LD50 = 106 mg/kg bw (Rat)

Acute dermal toxicity: LD50 = > 2,000 mg/kg bw (Rat)

Skin Irritation: Slightly irritating (Rabbit)

Section 12: Ecological Information

Ecological Data for Advantage Multi for Dogs

Ecological Data for Aromatic alcohol

Ecological Note: No data available for this component.

Ecological Data for Carbonate derivative

Fish Toxicity: LC50 = > 1,000 mg/L, 48 hrs. Golden orfe (Leuciscus idus)

Invertebrate Toxicity: EC50 = > 500 mg/L, 24 hrs. Water flea (Daphnia magna)

Ecological Note: No data available for this component.

Ecological Data for Imidacloprid

Fish Toxicity: LC50 = 211 mg/L, 96 hrs. Rainbow (Donaldson)Trout (Oncorhynchus mykiss)

Invertebrate Toxicity: EC50 = 85 mg/L, 48 hrs. Water flea (Daphnia magna)

Plant Toxicity: Aquatic Plants growth rate = > 10 mg/L, 72 hrs.

Ecological Data for Moxidectin

Fish Toxicity: LC50 = 0.62 ug/L, Bluegill (Lepomis macrochirus)

0.16 ug/L, Rainbow trout (Salmo gairdneri)

Invertebrate Toxicity: EC50 = 0.03 ug/L, Water flea (Daphnia magna)

Plant Toxicity: EC50 = > 86.9 ug/L, Green algae (Selenastrum capricornutum)

Section 13: Disposal Considerations

Waste Disposal Method: Follow container label instructions for disposal of wastes generated during use in compliance with the FDA product label. Do not reuse container.

Section 14: Transportation Information

Technical shipping name: Pesticide

Freight Class
Bulk: Insecticides, N.O.I. (NMFC 102120)
Package: Insecticides, N.O.I. (NMFC 102120)

Domestic Surface Transportation (DOT)
Hazard Class or Division: Non-Regulated

Marine Transportation (IMO / IMDG)
Hazard Class Division Number: Non-Regulated

Air Transportation (ICAO / IATA)
Hazard Class Division Number: Non-Regulated

Section 15: Regulatory Information

United States Federal Regulations

OSHA Hazcom Standard Rating: Hazardous

TSCA Inventory List: **This product is excluded from TSCA regulation by Section 3 (2)(B)(vi) when used for FDA application.**

CERCLA Hazardous Substance:

Component(s)	Reportable Quantity
None	

SARA Title III
SARA Section 302 Extremely Hazardous Substances:

Component(s)/ CAS Number	Concentration Min.	Max.
None		

SARA Section 311/312 Hazard Categories: Immediate Health Hazard

SARA Section 313 Toxic Chemicals:

Component(s)/ CAS Number	Reporting Threshold	Concentration Min.	Max.
None			

RCRA Status: 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)

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

State Right-to-Know Information

Component(s)/ CAS Number	State Code	Concentration Min.	Concentration Max.
Aromatic alcohol	PA-H, NJ-N, MA-H	60%	100%
Carbonate derivative	PA-N, NJ-N	10%	30%
Imidacloprid 138261-41-3	PA-N, NJ-N	7%	13%
Moxidectin 113507-06-5	PA-N, NJ-N	1%	5%

State Code Translation Table

PA-N = Pennsylvania Non-hazardous
PA-H = Pennsylvania Hazardous Substance List
NJ-N = New Jersey Other - includes predominant ingredients
MA-H = Massachusetts Hazardous Substance List

Section 16: Other Information

NFPA 704M Rating

Health	2
Flammability	1
Reactivity	0
Other	

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

BAYER HEALTHCARE LLC's method of hazard communication is comprised of Product Labels and Material Safety Data Sheets. HMIS and NFPA ratings are provided by BAYER HEALTHCARE LLC as a customer service.

Contact: John Sheehan
Phone: (913) 268-2570
MSDS Number: 000000001429
Version Date: 08/27/2008
MSDS Version: 1.16

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Indicates Relevant Change Made.

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product information

Product Name:	Advantage multi for Dogs
Synonyms:	Advantage
SDS Number:	122000001555

Use : veterinary medicine

Company
BAYER HEALTHCARE LLC
Animal Health Division
12707 Shawnee Mission Parkway
(West 63rd)
Shawnee, KS 66216-1846
USA
(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, clear **Form:** liquid **Odour:** weak, characteristic.

GHS Classification:

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

GHS Label element:

Hazard pictograms :



Signal word : Warning

Hazard statements : H302 + H332 Harmful if swallowed or if inhaled

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H319 Causes serious eye irritation.

Precautionary statements : **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:
P312 Call a POISON CENTER or doctor/ physician if you feel unwell.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P391 Collect spillage.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients:

Weight percent	Components	CAS-No.
10 - 30%	Carbonate derivative	
60 - 100%	Alcohol derivative	
9.11%	Imidacloprid	138261-41-3

Other Ingredients

Weight percent	Components	CAS-No.
0.8645%	Moxidectin	113507-06-5

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 evolution 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.

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.

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.

Storage:
Storage temperature: 39 - 77 °F (3.89 - 25 °C)

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

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Respiratory protection:
Recommended Filter type: Organic vapor with prefilter

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:	liquid	
Colour:	yellow, brownish, clear	
Odour:	weak, characteristic	
Odour Threshold:	No applicable information is available	
Melting point:	No applicable information is available	
Boiling point/boiling range:	No applicable information is available	
Density:	1.098 g/cm³ at 68 °F (20 °C)	DIN 51757
Bulk density:	No applicable information is available	
Vapour pressure:	No applicable information is available	
Viscosity, dynamic:	No applicable information is available	
Viscosity, kinematic:	No applicable information is available	
Flow time:	No applicable information is available	
Surface tension:	No applicable information is available	
Miscibility with water:	immiscible	
Water solubility:	No applicable information is available	
pH:	No applicable information is available	
Relative density:	No applicable information is available	
Partition coefficient:	No applicable information is available	
Solubility(ies):	No applicable information is available	
Flash point:	> 212 °F (> 100 °C)	
Flammability (solid, gas):	No applicable information is available	
Ignition temperature:	No applicable information is available	
Explosion limits:	No applicable information is available	

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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: Exothermic polycondensation, accompanied by setting-free of water, may occur in the presence of acids and dissolved iron, zinc or aluminium.

Thermal decomposition:

No data available

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

Oxidizing properties:

No statements available.

Impact sensitivity:
No data available

11. TOXICOLOGICAL INFORMATION

Other information on toxicity:
Alcohol derivative
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:
Acute toxicity estimate (ATE) 1,105 mg/kg
Harmful if swallowed.
Method: Calculation method
Calculated for GHS Classification and Labelling.

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Acute inhalation toxicity:
Acute toxicity estimate (ATE) 14.25 mg/l
Harmful if inhaled.
Method: Calculation method
Calculated for GHS Classification and Labelling.

Acute dermal toxicity:
Imidacloprid
LD50 Rat: > 5,000 mg/kg
The substance or mixture has no acute dermal toxicity

Moxidectin
LD50 Rabbit: > 2,000 mg/kg

LD50 Rat: > 2,000 mg/kg
May be harmful in contact with skin.

Carbonate derivative
LD50 Rabbit: > 20,000 mg/kg
The substance or mixture has no acute dermal toxicity

Alcohol derivative
LD50 Rabbit: > 2,000 mg/kg
May be harmful in contact with skin.

Acute toxicity (other routes of administration):
Moxidectin
LD50 intraperitoneal Rat: 394 mg/kg

LD50 intraperitoneal Mouse: 86 mg/kg

LD50 subcutaneous Rat: > 640 mg/kg

LD50 subcutaneous Mouse: 86 mg/kg

Skin irritation:
Imidacloprid
Rabbit
Result: No skin irritation

Moxidectin
Result: Moderate skin irritation

Carbonate derivative
Rabbit
Result: No skin irritation
Method: OECD 404

Alcohol derivative
Rabbit
Result: No skin irritation
Method: OECD 404

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Eye irritation:
Imidacloprid
Rabbit
Result: No eye irritation

Moxidectin
Result: Moderate eye irritation

Carbonate derivative
Rabbit
Result: Causes eye irritation.
Method: OECD 405

Alcohol derivative
Rabbit
Result: No eye irritation
Method: OECD 405

Sensitisation:
Imidacloprid
Skin sensitization guinea pig
Result: Did not cause sensitisation on laboratory animals.
Method: Magnusson and Kligmann maximization test

Carbonate derivative
Result: Does not cause skin sensitisation.

Alcohol derivative
guinea pig
Result: Did not cause sensitisation on laboratory animals.
Method: Magnusson and Kligmann maximization test

Subacute, subchronic and prolonged toxicity:
Alcohol derivative
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

Moxidectin
Result: No evidence of a gene mutagenic effect.

Alcohol derivative
Ames test
Result: negative

Genotoxicity in vivo:
Imidacloprid

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

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Carbonate derivative

Result: No indication of mutagenic effects.

Alcohol derivative

Result: No indication of mutagenic effects.

Carcinogenicity:
Imidacloprid
Result: Animal testing did not show any carcinogenic effects.

Reproductive toxicity:
Imidacloprid
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.

Moxidectin
Suspected of damaging fertility. Suspected of damaging the unborn child.

Alcohol derivative
Result: Did not show teratogenic effects in animal experiments.

Pharmaceutic effects:
Imidacloprid
Insecticide

Moxidectin
Anthelmintics Antiparasitic agent

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:

100-51-6 :
Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

138261-41-3 :
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

Moxidectin
Acute Fish toxicity: LC50 16 µg/l
Test species: Oncorhynchus mykiss (rainbow trout)

LC50 62 µg/l
Test species: Lepomis macrochirus (Bluegill)

Carbonate derivative
static test: LC50 ca. 5,300 mg/l
Test species: Leuciscus idus (Golden orfe) Duration of test: 96 h
Method: DIN 38412

Alcohol derivative
Acute Fish toxicity: LC50 10 mg/l
Test species: Lepomis macrochirus (Bluegill) 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

Moxidectin
EC50 302 ng/l
Test species: Daphnia magna (Water flea)

Carbonate derivative
static test EC50 > 500 mg/l
Test species: Daphnia magna (Water flea) Duration of test: 48 h

Alcohol derivative
EC50 55 mg/l
Test species: Daphnia magna (Water flea) Duration of test: 24 h

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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

Moxidectin
EC50 > 869 µg/l

Carbonate derivative
static test > 500 mg/l
tested on: Desmodesmus subspicatus (green algae) Duration of test: 72 h
Method: DIN 38412

Alcohol derivative
IC50 > 100 mg/l
Duration of test: 72 h

Toxicity to bacteria:
Imidacloprid
EC50 > 10,000 mg/l
tested on: activated sludge micro-organism
Method: OECD 209

Carbonate derivative
EC20 > 800 mg/l
tested on: activated sludge micro-organism
Duration of test: 0.5 h
Method: ISO 8192

Alcohol derivative
EC50 71.4 mg/l
tested on: Photobacterium phosphoreum
Duration of test: 0.5 h

Biodegradability:
Carbonate derivative
rapidly biodegradable

Alcohol derivative
92 - 96 %, 28 d rapidly biodegradable
Method: OECD 301 C

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Bioaccumulation:
Imidacloprid

Low potential for bioaccumulation

Carbonate derivative

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

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 (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. (MOXIDECTIN)
Class	9
Packaging group	III
Dangerous goods labels	9
Environmentally hazardous	yes

International IMDG

UN Number	3082
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

Created by Global Safety Management, Inc. -Tel: 1-813-435-5161 - www.gsmsds.com

	N.O.S. (MOXIDECTIN)
Class	9
Packaging group	III
IMDG-Labels	9
EmS Number	F-A
Marine pollutant	yes

15. REGULATORY INFORMATION

US. Toxic Substances Control Act This product is excluded from TSCA regulation by Section 3 (2)(B)(vi) when used for FDA application.

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

SARA Section 311/312 Hazard Categories Immediate Health Hazard

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

16. OTHER INFORMATION

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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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.

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