



Material Safety Data Sheet
DECIS® 0.2EC INSECTICIDE

MSDS Number: 102000003169
 MSDS Version 2.0
 Revision Date: 12/08/2005

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name DECIS® 0.2EC INSECTICIDE
MSDS Number 102000003169
Chemical Family Pyrethroid (Synthetic)
EPA Registration No. 264-1007
Product Use For Insect Control on Bulb Vegetables, Cucurbit Vegetables, Fruiting Vegetables, Root Vegetables (except Sugarbeets), Tuberos and Corn Vegetables, Pome Fruits, Tree Nuts, Canola and Rapeseed, Cotton, Field Corn, Popcorn, Sweet Corn, Soybeans, Sorghum and Sunflowers.

Bayer CropScience
 2 T.W. Alexander Drive
 Research Triangle PK, NC 27709
 USA

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)
 For Product Information call: 1-866-99BAYER (1-866-992-2937)

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Deltamethrin	52918-63-5	2.86
2-Methylpropan-1-ol	78-83-1	1.18
1,2,4-Trimethylbenzene	95-63-6	28.54
Xylene	1330-20-7	2.68
Cumene	98-82-8	1.34

SECTION 3. HAZARDS IDENTIFICATION

NOTE: Please refer to Section 11 for detailed toxicological information.

Emergency Overview Danger! May be fatal if swallowed. Corrosive - causes irreversible eye damage. Causes skin burns. Do not get in eyes, on skin, or on clothing. Harmful if inhaled or absorbed through skin. Avoid breathing spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Extremely toxic to fish and aquatic invertebrates.

Physical State liquid
Odor characteristic of organic solvents
Appearance off-white



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Routes of Exposure	Ingestion, Inhalation, Eye contact, Skin Absorption, Skin contact
Immediate Effects	
Eye	Corrosive - causes irreversible eye damage. Do not get in eyes.
Skin	Harmful if absorbed through skin. Can cause irritation to the skin resulting in effects such as burning and/or tingling sensation. Avoid contact with skin.
Ingestion	May be fatal if swallowed. Do not take internally.
Inhalation	Harmful if inhaled. Do not breathe vapours or spray mist. May cause upper respiratory tract irritation, dizziness, headache, nausea, vomiting.

SECTION 4. FIRST AID MEASURES

General	Have the product container or label with you when calling a poison control center or doctor or going for treatment.
Eye	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Skin	Take off all contaminated clothing immediately. Rinse immediately with plenty of water for at least 15 minutes. Call a poison control center or doctor for treatment advice.
Ingestion	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person.
Inhalation	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
Notes to Physician Signs and Symptoms	<p>Local: After skin contact: paresthesia (local). May cause irritation to skin and mucous membranes. Inhalation may provoke the following symptoms: irritation cough</p> <p>Systemic: excitement gastrointestinal discomfort tremors Dizziness, headache, listlessness, nausea and vomiting, epigastric pain, muscular fasciculation of limbs, unconsciousness, convulsions and coma (very</p>



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	high doses).
Hazards	This product/preparation contains a pyrethroid. Must NOT be confused with organophosphorus compounds! Risk of product entering the lungs on vomiting after ingestion.
Treatment	Local treatment: Initial treatment should be symptomatic and supportive. After eye contact: Instillation of local anaesthetic drops e.g. 1% Amethocaine Hydrochloride eye drops. Give Analgesics as necessary. Published data indicate Vitamin E acetate can prevent and/or mitigate symptoms of paresthesia (skin irritation) caused by synthetic pyrethroids. Systemic treatment: Endotracheal intubation should be done and gastric lavage performed, followed by administration of charcoal. Monitoring of respiratory and cardiac functions. ECG - monitoring (Electrocardiogram). Check for pulmonary oedema in event of inhalation. Keep airway clear, administer artificial respiration if necessary. Against convulsions: give diazepam. For adults 5-10 mg intravenously as necessary until fully sedated; for children 2.5 mg i.v. There is no specific antidote. Contraindication: atropine. Contraindication: derivatives of adrenaline. Recovery: Spontaneous.

SECTION 5. FIRE FIGHTING MEASURES

Flash Point	43 °C / 109 °F
Suitable Extinguishing Media	carbon dioxide (CO2), dry chemical, water spray, foam
Fire Fighting Instructions	Isolate hazard area. Keep out of smoke. Stay upwind. Avoid contact with spilled product or contaminated surfaces. Cool containers with water from the farthest possible distance away. Move containers from fire area if without risk. Do not allow run-off from fire fighting to enter drains or water courses. Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Isolate hazard area. Keep unauthorized people away. Avoid contact with spilled product or contaminated surfaces.
Methods for Cleaning Up	Take all necessary action to prevent and to remedy the effects of the spill. Take up with absorbent material (e.g. sand, diatomaceous earth or a proprietary absorbent material). Keep in suitable, closed containers for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations.



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Additional Advice Use personal protective equipment. Do not allow material to enter streams, sewers, or other waterways or contact vegetation.

SECTION 7. HANDLING AND STORAGE

Handling Procedures Do not get in eyes, on skin, or on clothing. Avoid breathing spray mist.

Storing Procedures Do not use, pour or store near heat or open flame.
 Do not contaminate water, food, or feed by storage or disposal. Store in original container and out of the reach of children, preferably in a locked storage area.

Work/Hygienic Procedures Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.
 Remove and wash contaminated clothing and gloves, including the inside, before re-use.

Min/Max Storage Temperatures Do not transport or store below -30 °C / -22 °F
 Do not transport or store above 38 °C / 100 °F

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General Protection Follow all label instructions. Train employees in safe use of the product.
 Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

Engineering Controls Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.
 Ensure adequate ventilation, especially in confined areas.

Eye/Face Protection protective eyewear

Hand Protection Chemical-resistant gloves (barrier laminate, butyl rubber, nitrile rubber or Viton)

Body Protection Coveralls over long sleeved shirt and long pants.
 Chemical resistance footwear plus socks.
 Chemical resistant headgear for overhead exposure
 Chemical resistant apron when cleaning equipment, mixing or loading.

Respiratory Protection When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or Industry recommendations.

Exposure Limits



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1,2,4-Trimethylbenzene	95-63-6	NIOSH	REL	25 ppm	125 mg/m3
		ACGIH	TWA		25 ppm
		OSHA Z1A	TWA	25 ppm	125 mg/m3
		US CA OEL	TWA PEL	25 ppm	125 mg/m3
Cumene	98-82-8	ACGIH	TWA		50 ppm
		NIOSH	REL	50 ppm	245 mg/m3
		OSHA Z1	PEL	50 ppm	245 mg/m3
		OSHA Z1A	TWA	50 ppm	245 mg/m3
		US CA OEL	TWA PEL	50 ppm	245 mg/m3
Xylene	1330-20-7	ACGIH	TWA		100 ppm
		ACGIH	STEL		150 ppm
		OSHA Z1	PEL	100 ppm	435 mg/m3
		OSHA Z1A	TWA	100 ppm	435 mg/m3
		OSHA Z1A	STEL	150 ppm	655 mg/m3
		US CA OEL	TWA PEL	100 ppm	435 mg/m3
		US CA OEL	Ceiling		300 ppm
		US CA OEL	STEL	150 ppm	655 mg/m3
		NIOSH	REL	100 ppm	435 mg/m3
		NIOSH	STEL	150 ppm	655 mg/m3
		NIOSH	REL	100 ppm	435 mg/m3
2-Methylpropan-1-ol	78-83-1	NIOSH	STEL	150 ppm	655 mg/m3
		ACGIH	TWA		50 ppm
		NIOSH	REL	50 ppm	150 mg/m3
		OSHA Z1	PEL	100 ppm	300 mg/m3
		OSHA Z1A	TWA	50 ppm	150 mg/m3
		US CA OEL	TWA PEL	50 ppm	150 mg/m3

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	off-white
Physical State	liquid
Odor	characteristic of organic solvents
pH	4.8
Bulk Density	7.5 lbs/gal
Water Solubility	dispersible

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability	Stable
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Reproductive & Developmental Toxicity

REPRODUCTION: Deltamethrin was not a reproductive toxicant in multi-generation reproduction studies in rats.

DEVELOPMENTAL TOXICITY: Deltamethrin was not a primary developmental toxicant in developmental toxicity studies in rats and rabbits. Developmental effects (e.g., delayed ossifications) were observed in rabbits at the high-dose but were considered secondary to maternal toxicity.

Neurotoxicity

Deltamethrin did not cause delayed neurotoxicity in hens. In acute and subchronic neurotoxicity screening studies in rats, neurobehavioral effects (e.g., tremors) were observed without correlating neuropathological changes.

Mutagenicity

Deltamethrin was not mutagenic or genotoxic in a battery of in vitro and in vivo mutagenicity studies.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity to Fish

Fish
LC50: 0.001 - 0.01 mg/l
The value mentioned relates to the active ingredient deltamethrin.

Environmental Precautions

Extremely toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to fish/aquatic organisms in adjacent sites. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water.

Highly toxic to bees exposed to direct treatment. Do not apply it or allow it to drift to crops or weeds on which bees are actively foraging.

Notify state and/or Federal authorities and Bayer immediately if you observe any adverse environmental effects due to the use of this product. It is a Federal offense to use any pesticide in a manner that results in the death of a member of an endangered species.



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SECTION 13. DISPOSAL CONSIDERATIONS

- General Disposal Guidance** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.
- Container Disposal** Triple rinse containers. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke. Refer to the product label for other disposal instructions.
- RCRA Classification:** The RCRA Classifications may be on the individual component(s) and not necessarily on the product as a whole.
- 78-83-1 2-Methylpropan-1-ol
 US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261): U140
- 78-83-1 2-Methylpropan-1-ol
 US. EPA Resource Conservation and Recovery Act (RCRA) U List of Hazardous Wastes (40 CFR 261.33(f) and 40 CFR 302 [CERCLA]): U140
- 78-83-1 2-Methylpropan-1-ol
 US. EPA Resource Conservation and Recovery Act: (RCRA) D List of Characteristic Hazardous Wastes (40 CFR 261.21-24): D001
- 1330-20-7 Xylene
 US. EPA Resource Conservation and Recovery Act (RCRA) U List of Hazardous Wastes (40 CFR 261.33(f) and 40 CFR 302 [CERCLA]): U239
- 98-82-8 Cumene
 US. EPA Resource Conservation and Recovery Act (RCRA) U List of Hazardous Wastes (40 CFR 261.33(f) and 40 CFR 302 [CERCLA]): U055
- 98-82-8 Cumene
 US. EPA Resource Conservation and Recovery Act: (RCRA) D List of Characteristic Hazardous Wastes (40 CFR 261.21-24): D001



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SECTION 14. TRANSPORT INFORMATION

DOT CLASSIFICATION:

Pesticides, liquid, toxic, flammable, N.O.S. (Deltamethrin, xylene), 6.1,(3), UN2903, PG III

FREIGHT CLASSIFICATION:

Insecticides or Fungicides, N.O.I.; poison, other than gases that are poisonous by inhalation

SECTION 15. REGULATORY INFORMATION

EPA Registration No. 264-1007

US Federal Regulations

TSCA list

2-Methylpropan-1-ol	78-83-1
1,2,4-Trimethylbenzene	95-63-6
Xylene	1330-20-7
Cumene	98-82-8

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

Xylene	1330-20-7
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SARA Title III - Section 302 - Notification and Information

None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

1,2,4-Trimethylbenzene	95-63-6	1.0%
Xylene	1330-20-7	1.0%
Cumene	98-82-8	1.0%

US States Regulatory Reporting

CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients

2-Methylpropan-1-ol	78-83-1	CA, CT, IL, MN, PA, RI
1,2,4-Trimethylbenzene	95-63-6	CA, IL, MN, NJ, PA, RI
Xylene	1330-20-7	CA, CT, IL, MI, MN, NJ, PA, RI
Cumene	98-82-8	CA, CT, IL, MN, NJ, PA, RI

Canadian Regulations

Canadian Domestic Substance List

2-Methylpropan-1-ol	78-83-1
1,2,4-Trimethylbenzene	95-63-6
Xylene	1330-20-7
Cumene	98-82-8

Environmental



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CERCLA

2-Methylpropan-1-ol	78-83-1	5,000 lbs
Xylene	1330-20-7	100 lbs
Cumene	98-82-8	5,000 lbs

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

International Regulations

European Inventory of Existing Commercial Substances (EINECS)

Deltamethrin	52918-63-5
2-Methylpropan-1-ol	78-83-1
1,2,4-Trimethylbenzene	95-63-6
Xylene	1330-20-7
Cumene	98-82-8

SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 3 Flammability - 2 Reactivity - 0 Others - none

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason to Revise: Re-numbered due to system update; New EPA Registration number.

Revision Date: 12/08/2005

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