



THIODAN 4EC

MSDS Version 1.3

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name THIODAN 4EC
Chemical Name
Synonym
MSDS Number 323
Chemical Family
Chemical Formulation
EPA Registration No.
Canadian Registrat. No. 15747

Bayer CropScience Inc
 #100 - 3131 - 114th Avenue SE
 Calgary, AB T2Z 3X2
 Canada

Emergency Number (24 Hours/Day): 1-800-334-7577 Product Information: 1-888-283-6847

Product Use Description Insecticide for the control of insects.

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

	<u>Component Name</u>	<u>CAS No.</u>	<u>Concentration % by Weight</u>	
			<u>Minimum</u>	<u>Maximum</u>
	Endosulfan	115-29-7	>= 38.0000	<= 39.0000
	Xylene	1330-20-7	>= 55.0000	<= 60.0000
	INERTS		>= 6.2000	

ENDOSULFAN 38-39% (400 g/l)

SECTION 3. HAZARDS IDENTIFICATION

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

Emergency Overview Can be fatal if swallowed or inhaled. Avoid exposure to product during pregnancy as solvent may cause teratogenic effects. This pesticide product is FLAMMABLE AND TOXIC to fish. Do not contaminate water. May cause irritation to eyes, nose, throat and skin.

Odor Aromatic

Appearance Dark brown Liquid

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Routes of Exposure Inhalation, ingestion, or absorption through the skin.

Immediate Effects

SECTION 4. FIRST AID MEASURES

Eye	Immediately wash eye with water for 15 minutes. Get medical attention immediately.
Skin	Remove soiled clothing and wash skin with soap and water. Wash soiled clothes separately from other articles before wearing again.
Ingestion	If swallowed, contact a physician or Poison Control Center immediately. Do not induce vomiting except under the direct supervision of a physician.
Inhalation	If inhaled, move victim to fresh air. If not breathing, give artificial respiration and get medical help immediately.
Note to Physician	<p>In the event of ingestion, the following measures should be considered: Monitor function: Respiratory, Cardiac, Kidney, Liver and Central Nervous System. Gastric lavage, charcoal administration, endotracheal intubation and elimination by dialysis. There is no specific antidote. For anticonvulsant therapy, Phenobarbital (supported by I.V. Diazepam; 10% calcium gluconate I.V.) is recommended. Note: Adrenergic compounds; Morphine derivatives, Atropine and Pralidoxime are contraindicated. There may be delayed neurological effects, including brain oedema. Also, due to the presence of xylene, do not give vasopressor drugs (e.g. epinephrine or its derivatives) as there may be danger of cardiac arrhythmia.</p>

SECTION 5. FIRE FIGHTING MEASURES

Flash Point	32 °C / 90 °F CLOSED CU: (89.6 °F).
Suitable Extinguishing Media	Water, water mist, foam or dry chemical.
Fire Fighting Instructions	Use water spray to cool off fire exposed surfaces and to protect personnel. Firefighters should wear self-contained breathing apparatus. Prevent fire run-off from entering lakes or streams.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Land Spill or Leaks	Wear appropriate protective equipment for spill clean-up. SMALL SPILL:
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Absorb with sand or other non-combustible material like clay or kitty litter.

LARGE SPILL:

Dike up and contain the spill in appropriate recovery containers. Absorb the rest with sand, earth or clay. Decontaminate the area and used equipment with laundry bleach (Javex) or hydrated lime.

SECTION 7. HANDLING AND STORAGE

Handling Procedures Wear suitable protective clothing, rubber gloves, pesticide respirator and eye protection when handling this product.

Storing Procedures Keep containers closed if not used. Do not handle or store near flame, heat or strong oxidants. Store away from food, drink and feed stuff. Avoid freezing temperatures. Keep out of reach of children.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

General Protection WORK PRACTICES:
When spraying, wear clean, well fitted goggles, pesticide approved respirator, protective clothes and gloves. DO NOT eat, drink or smoke when handling this product. Wash your hands before touching anyone or anything.

See Handling and Work Practices, section 7.

Exposure Limits

XYLENE (1330-20-7)
ACGIH TLV
651 MG/M3 (STEL)
150 PPM (STEL)
434 MG/M3 (TWA)
100 PPM (TWA)
ENDOSULFAN (115-29-7)
ACGIH TLV
0.1 MG/M3 (TWA)

Endosulfan	115-29-7	OEL (QUE) TWA	0.1 mg/m3
		CAD AB OEL TWA	0.1 mg/m3
		CAD AB OEL STEL	0.3 mg/m3
		CAD BC TWA	0.1 mg/m3
		OEL	
		CAD BC STEL	0.3 mg/m3
		CAD ON TWA	0.1 mg/m3
Xylene	1330-20-7	OEL	
		OEL (QUE) TWA	100 ppm 434 mg/m3
		OEL (QUE) STEL	150 ppm 651 mg/m3
		CAD AB OEL TWA	100 ppm 434 mg/m3
		CAD AB OEL STEL	150 ppm 652 mg/m3

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CAD BC	TWA		100 ppm
OEL			
CAD BC	STEL		150 ppm
OEL			
CAD ON	TWA	100 ppm	435 mg/m3
OEL			
CAD ON	STEL	150 ppm	650 mg/m3
OEL			

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Dark brown Liquid
Odor	Aromatic
Specific Gravity	1.07 to 1.1
Solubility (in water)	Miscible emulsifiable concentrate.

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability	STABLE.
Conditions to Avoid	Avoid the use of polyethylene plastic and rubber containers in packaging.
Hazardous Products of Decomposition	Thermal decomposition may produce toxic smoke, CO and CO2.
Hazardous Polymerization (Conditions to avoid)	Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity	LD50 : 107.2 mg a.i./kg (rat)
Acute Dermal Toxicity	LD50 : 359 mg a.i./kg (rabbit)
Acute Inhalation Toxicity	LC50 : > 4.6 g a.i./m3 air (rat)
Skin Irritation	slight irritant (rabbit)
Eye Irritation	UNDILUTED - moderate irritant (rabbit) DILUTED (10%) - not irritant

Assessment Carcinogenicity

Evaluation of endosulfan technical in laboratory animals in chronic studies found no evidence of

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carcinogenicity in mice and rats. Endosulfan technical caused toxic kidney damage with secondary parathyroid hyperplasia and testicular atrophy in rat chronic feeding studies.
This product is not considered a carcinogen and is not listed by OSHA, IARC or NTP.

ACGIH

None

NTP

None

IARC

Xylene

1330-20-7

3

OSHA

None

Teratogenicity

Endosulfan technical was fetotoxic at maternally toxic levels, but was not teratogenic.
High exposures to xylene in some animal studies, often at levels toxic to the mother, affected embryo / fetal development. The significance of this finding to humans is not known but excessive exposure to xylene may be hazardous to the developing fetus.

SECTION 12. ECOLOGICAL INFORMATION

Ecological Information

Thiodan is toxic to fish. Do not exceed prescribed application rates. Do not apply to fields where run-off can enter streams, canals, ditches or lakes containing fish. Residues are rapidly metabolized and self-eliminated within 48 hours. The metabolites resulting from the degradation of Thiodan are markedly less toxic than the product itself. No accumulations have been found in fish fatty tissues.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance

Dispose in accordance with local regulations (government approved incinerator). Mixing with strong alkali-like lime or caustic soda speeds up degradation. Empty containers should be TRIPLE RINSED and destroyed in a manner that is approved by the Provincial Ministry of Environment.
DO NOT RE-USE EMPTY CONTAINERS.

RCRA Classification

SECTION 14. TRANSPORT INFORMATION

TDG classification: ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC, FLAMMABLE, (Endosulfan, Xylene)
Class 6.1(3), UN 2995, P.G. III

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SECTION 15. REGULATORY INFORMATION

Thiodan is a registered Canadian Pest Control product.
PCP# 15747.

US Federal

EPA Registration No.

TSCA list

Xylene 1330-20-7

TSCA 12b export notification

None

SARA Title III - section 302 - notification and information

None

SARA Title III - section 313 - toxic chemical release reporting

None

US States Regulatory

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

None

Canadian Regulations

Canadian Registrat. No. 15747

Canadian Domestic Substance List

Xylene 1330-20-7

Environmental

CERCLA

None

Clean Water Section 307 Priority Pollutants

None

Safe Drinking Water Act Maximum Contaminant Levels

None

International Regulations

EU Classification

Xylene 1330-20-7 Harmful
R Phrases Flammable. Harmful by inhalation and in contact with skin.
Irritating to skin.
S Phrases Keep out of the reach of children. Avoid contact with the eyes.

European Inventory of Existing Commercial Substances (EINECS)

Endosulfan 115-29-7

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Xylene

1330-20-7

SECTION 16. OTHER INFORMATION

Prepared by : The HSE Department of Bayer CropScience.
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Print Date: 01.01.2006

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