



## 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

<b>Eye</b>	Immediately wash eye with water for 15 minutes. Get medical attention immediately.
<b>Skin</b>	Remove soiled clothing and wash skin with soap and water. Wash soiled clothes separately from other articles before wearing again.
<b>Ingestion</b>	If swallowed, contact a physician or Poison Control Center immediately. Do not induce vomiting except under the direct supervision of a physician.
<b>Inhalation</b>	If inhaled, move victim to fresh air. If not breathing, give artificial respiration and get medical help immediately.
<b>Note to Physician</b>	<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

<b>Flash Point</b>	32 °C / 90 °F CLOSED CU: (89.6 °F).
<b>Suitable Extinguishing Media</b>	Water, water mist, foam or dry chemical.
<b>Fire Fighting Instructions</b>	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

<b>Land Spill or Leaks</b>	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
		OEL	
Xylene	1330-20-7	CAD ON TWA	0.1 mg/m3
		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

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

### SECTION 10. STABILITY AND REACTIVITY

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

### SECTION 11. TOXICOLOGICAL INFORMATION

<b>Acute Oral Toxicity</b>	LD50 : 107.2 mg a.i./kg (rat)
<b>Acute Dermal Toxicity</b>	LD50 : 359 mg a.i./kg (rabbit)
<b>Acute Inhalation Toxicity</b>	LC50 : > 4.6 g a.i./m3 air (rat)
<b>Skin Irritation</b>	slight irritant (rabbit)
<b>Eye Irritation</b>	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

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### 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

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### SECTION 16. OTHER INFORMATION

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Prepared by : The HSE Department of Bayer CropScience.  
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