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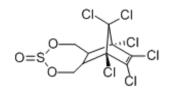
# MATERIAL SAFETY DATA SHEET

## Manufacturer/information service:

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# 1. Chemical Product Identification

Product Name: Endosulfan 35% EC Molecular Formula: C<sub>9</sub>H<sub>6</sub>Cl<sub>6</sub>O<sub>3</sub>S Molecular Weight: 406.9 g/mol Structural Formula:



Chemical Name: 1,4,5,6,7,7-hexachloro-8,9,10-trinorborn-5-en-2,3-ylenebismethylene sulfite Form: Homogenous brown liquid Colour: Slight brow Odor: with sulfur dioxide odor CAS No.: 115-29-7

## 2. Composition / Information On Ingredients

Composition	CAS No.	Content %
Endosulfan	115-29-7	35.0
Other ingredients		65.0



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### 3. Hazards Identification

May cause irritation to the eyes, skin and upper respiratory system. Poisonous material. Effects from overexposure result from either swallowing, breathing or absorption through the skin. Symptoms include headache, weakness, abdominal cramps, nausea, excessive salivation, perspiration, blurred vision, tearing, I-point pupils, convulsions, tremor and coma. Ingestion or vomiting may cause aspiration into the respiratory system causing mild to severe pulmonary injury.

#### 4. First Aid Measures

Skin: Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention.

Eyes: First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.

Inhalation: Move affect person to fresh air and keep at rest until recovered. If not breathing, give artificial respiration and get to a doctor.

Ingestion: Do not induce vomiting if the person is conscious. Give glass of water. Get to a doctor.

Notes to physician: No specific antidote if ingested. Treat symptomatically.

### 5. Fire-Fighting Measures

Extinguishing media

To be used: Powder, water spray, carbon dioxide.

Don't use: Not applicable

Particular risk: None

Measures of personal protection: Safety glasses or goggles, rubber gloves, shoes plus socks, long-sleeved shirt, and long pants.

### 6. Accidental Release Measures

Personal cautions: Safety glasses or goggles, rubber gloves, shoes plus socks, long-sleeved shirt, and long pants.

Cleaning methods

EX: The empty container may be decontaminated by rinsing two or three times with water and detergent and scrubbing the sides.



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### Environmental cautions

EX: prevent the contamination of the floor and beds of water.

# 7. Handling And Storage

Handling: Do not apply to humans, their clothing, or bedding. Do not contaminate food or use on household tanks.

Storage: Store at normal temperatures, dry and dark place, away from children, domestic animals, food and feed products, seed and fertilizer. Do not contaminate other stored products or the storage area by handling or storage of this product. Keep in a well-ventilated room.

# 8. Exposure Controls / Personal Protection

Personal protective equipment Respiratory protection: Approved respirator Protective gloves: Rubber gloves Eye protection: Safety goggles or face shield. Industrial hygiene: adequate ventilation.

# 9. Physical And Chemical Properties

Appearance: Homogenous brown liquid Flash point: 35°C pH (20°C): 5.5~7.5 Acidity(H<sub>2</sub>SO<sub>4</sub>): ≤0.5% Emulsion stability: Qualified Specific gravity: 1.05~1.07

## **10. Stability And Reactivity**

Conditions to avoid: flame, fire, moisture condition and high temperature.

Products to avoid:Incompatible with alkaline and acid materials;

Thermal decomposition: N/A;

Hazardous decomposition products: The substance decomposes on heating, alkaline and acid condition producing toxic fumes formation of the diol and sulfur dioxide.

Hazardous reaction: Corrosive to iron



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### **11. Toxicological Information**

Acute oral LD<sub>50</sub> for rats is 38 a.i.mg/kg. Acute dermal LD<sub>50</sub> for rats is >500 a.i.mg/kg. Acute inhalation toxicity LC<sub>50</sub> (4 h) for rats is 0.013 a.i.mg/l. Skin irritation: Non-irritating to skin (rabbits). Eye irritation: Non-irritating to eyes (rabbits). Skin sensitization for guinea pig: Not a skin sensitiser.

## 12. Ecological And Ecotoxicological Information

Effect on birds: Acute oral LD<sub>50</sub> for Mallard is >111 a.i.mg/kg. Effect on fish: Acute LC<sub>50</sub> (96 h) for Rainbow trout is 0.002 a.i.mg/l. Effects on aquatic invertebrates: Acute EC<sub>50</sub> (48 h) for Daphnia magna is 0.44 a.i.mg/l. Effects on algae: Acute 72 hour EC<sub>50</sub> for Anabaena doliolum is 2.15 a.i.mg/l. Effects on bees: Contact acute (48 h) LD<sub>50</sub> is >7.81 a.i.µg/bee. Effects on earthworms: Acute 14 day LC<sub>50</sub> is >14 a.i.mg/kg.

## 13. Disposal Considerations

Material which can not be used at the site should be disposed of in an approved waste disposal facility following all applicable Local regulations. If burned, stay out of smoke. Do not contaminate water supplies by disposal of wastes or containers.

### 14. Transport Information

Not applicable.

## 15. Regulatory Information

Not applicable.

## 16. Other Information

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to



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ascertain that a new danger will not appear. It is the responsibility of persons on receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produce formulations containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.