

## MATERIAL SAFETY DATA SHEET

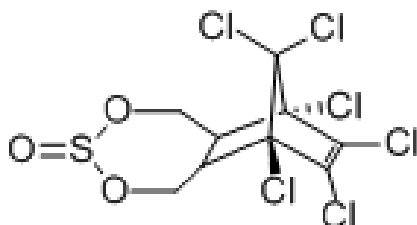
### AGRIANCE

P.O. Box 8213,  
Netanya, 42293, Israel.

In case of emergency, Call  
972-9-865-6454

### 1. PRODUCT IDENTIFICATION

**Product Name :** ENDOSUFAL  
**Active Ingredient (%) :** Endosulfan 350 g/Lt.  
**Chemical Name :** 1,2,3,4,7,7,-Hexachloro-8,9,10-trinorborn-2-en-5,6-ylenedimethyl sulfite  
**Chemical formula** C<sub>9</sub>H<sub>6</sub>Cl<sub>6</sub>O<sub>3</sub>S  
**Chemical Class** Insecticide  
**Structure:**



### 2. COMPOSITION / INFORMATION ON INGREDIENTS

Components	Percentage	CAS No.	Symbol	R Phrases
Endosulfan	350 g/l	115-29-7	T, N	R24/25-36-50/53
Xylene	Apprx. 625 g/l	1330-20-7	Xn	R10-20/21-38

### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

**CAUTION :** CAUSES EYE IRRITATION  
AVOID CONTACT WITH EYES, SKIN AND CLOTHING  
KEEP OUT OF REACH OF CHILDREN

#### POTENTIAL HEALTH EFFECTS

- 3.1 Likely routes of exposure** Ingestion, skin and eye contact.
- 3.2 Potential Hazard:**
- Inhalation** Mild irritant to the nose, throat and respiratory system.  
Low to moderately toxic.
- Skin Contact:** Mild irritant. Very low toxicity by contact. Moderate sensitizer. Repeated exposure to product may cause

**Eye Contact:** temporary allergic skin reaction.  
 Mild eye irritant.  
**Ingestion:** Very low toxicity

#### 4. FIRST AID MEASURES

- 4.1 HAZARDS:**  
**Physical/Chemical:** Flammable  
**Human health hazards :** Very toxic by inhalation.  
 Toxic if swallowed.  
 Irritating to skin.  
 Risk of serious damage to eyes.  
 Harmful in contact with skin.  
**Environmental hazard :** Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 4.2 FIRST AID:**  
**Ingestion :** May result in systemic poisoning. Do not induce vomiting. Wash out mouth with plenty of water. Never give anything by mouth to an unconscious person. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Immediately get medical attention.  
**Eye Contract :** Redness, tears. Wash off with plenty of water Immediately consult an eye specialist.  
**Skin Contact :** May result in systemic poisoning. Remove affected clothing and wash all exposed skin area with soap and water, followed by warm water rinse. Obtain medical attention.  
**Inhalation :** May result in systemic poisoning. Remove victim to fresh air. Keep victim warm and at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Immediately get medical attention.
- 4.3 Advices to Medical Treatment:** There is no specific antidote. Treat symptomatically and give supportive therapy. If ingested perform gastric lavage and administer activated charcoal. If victim is suffering from convulsions treat with Diazepam, Phenobarbital .

#### 5. FIRE FIGHTING MEASURES

- 5.1 Extinguishing Media :** For small fire : dry chemical , carbon dioxide .  
 For large fire: water spray , alcohol resistant foam .
- 5.2 Fire fighting instructions:** Fight fires from a protected location . Dike fire control water for later disposal.  
 Keep container cool by spraying with water .
- 5.3 Special Protective Equipment for** Wear proper protective equipment. Self-contained breathing apparatus

**Fire-Fighters:**

- 5.4 Special exposure Hazards:** Thermal decomposition generates : carbon dioxide , carbon monoxide , chlorides ,sulfur oxide , hydrogen chloride

**6. ACCIDENTAL RELEASE MEASURES**

- 6.1 Personal Precautions:** Use appropriate protection (see section 8). During cleaning activity, shut off ignition sources .
- 6.2 Environmental Precautions:** Dispose of this material and its container at hazardous or special waste collection point, In accordance with national and regional regulations . If the product has contaminated surface water, inform the appropriate authorities. Contaminated soil layers have to be dug out.
- 6.3 Methods for Cleaning Up:** In the event of minor spillage: Absorb in sand or other inert material . Use appropriate container to avoid environmental contamination. In the event of major spillage: Collect and contain as much free liquid as possible. Dike spills using absorbent or impervious materials such as sand or clay for later disposal.

**7. HANDLING AND STORAGE**

- 7.1 Handling:** Do not breathe fumes . Avoid contact with skin and eyes.
- 7.2 Storage:** Keep locked up Keep container tightly closed. Keep only in the original container in a cool, well ventilated place. Keep container dry . Keep away from strong bases.Keep away from sources of ignitio. No smoking .

**8. EXPOSURE CONTROL/PERSONAL PROTECTION**

**8.1 Occupational Exposure limits:**

**TLV [mg/m3]** Endosulfan (USA): 0.1 mg/m3, A4 skin (1996).  
 Xylene (USA): 434 mg/m3, A4 (1996).

**MAC [mg/m3]** (Netherlands) TWA: 0.1 mg/m3 (skin)

**8.2. Personal Protective Equipment (PPE)**

**Respiratory protection** During spraying wear suitable respiratory equipment.

**Skin protection** Employee must wear appropriate chemical resistant protective clothing to prevent skin contact with the substance.

**Hand** Employee must wear appropriate chemical resistant protective gloves

**protection:**

**Eye** Wear protective chemical goggles or eye shield

**protection**

**8.3 Industrial Hygiene:**

Ventilation required. Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower . Wash clothing before re-using. Wash hands thoroughly after handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 General Information

<b>Physical State:</b>	Liquid
<b>Appearance :</b>	Tan
<b>Odor</b>	Characteristic (aromatic)
<b>Solubility in water:</b>	Emulsifiable : 0.32 mg/l (22°C)
<b>pH</b>	Not available
<b>Flash Point (°C)</b>	69°C
<b>Molecular weight</b>	406.96
<b>Melting point (°C)</b>	70-100
<b>Vapour Pressure</b>	0.83 mPa (20 °C )
<b>Explosion limits :</b>	Xylene
<b>lower [%]</b>	1
<b>upper [%]</b>	7

## 10. STABILITY AND REACTIVITY

<b>10.1 Chemical Stability</b>	Stable under normal conditions.
<b>10.2 Hazardous Reactions:</b>	Avoid contact with : strong oxidizing agents , strong acids , strong bases , iron.
<b>10.3 Conditions to avoid:</b>	Protect from (sun)light and excessive heat . Avoid temperatures above 75°C
<b>10.4 Hazardous decomposition products :</b>	Thermal decomposition generates : carbon monoxide, carbon dioxide , hydrogenchloride , sulfur oxide , chlorides .
<b>10.5 Hazardous Polymerization:</b>	Will not occur.

## 11. TOXICOLOGICAL INFORMATION

<b>11.1 Acute Toxicity:</b>	
<b>Rat Oral LD<sub>50</sub></b>	70 mg/kg
<b>Rat Dermal LD<sub>50</sub></b>	730 mg/kg
<b>Rat Inhalation</b>	0.357 ( male ), 0.08 ( female ) mg/l /4h

	<b>Rabbit Eye Irritation :</b>	irritant to eyes
	<b>Rabbit Dermal irritation:</b>	Moderately irritating
	<b>Dermal sensitization:</b>	Guinea pig maximization test: Non sensitizer
11.2	<b>Carcinogenic Effects:</b>	Not Carcinogenic
11.3	<b>Mutagenic Effects:</b>	Not Mutagenic
11.4	<b>Reproductive Toxicity:</b>	Not teratogenic in animal experiments

## 12. ECOLOGICAL INFORMATION

12.1	<b>Ecotoxicity :</b>	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
	<b>96 H-LC50 - Rainbow trout [µg/l]:</b>	0.9
	<b>LC50 - Daphnia magna [µg/l]</b>	75
	<b>EC50 Algae [µg/l]</b>	>0.56
	<b>Mobility</b>	Product does not leach to ground water
	<b>Bioaccumulative potential</b>	Moderately Biodegradable. BCF=100-190

## 13. DISPOSAL CONSIDERATION

13.1	<b>Disposal:</b>	Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.
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## 14. TRANSPORT INFORMATION

14.1.	<b>UN number</b>	2995
14.2	<b>Shipping name:</b>	ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC, FLAMMABLE (350 g/l Endosulfan/Xylene)
14.3	<b>Packing Group</b>	II
14.4	<b>Class</b>	6.1
14.5	<b>H.I. Nr.</b>	63
14.6	<b>IDMG – Marine Pollution</b>	Yes

## 15. REGULATORY INFORMATION

**15.1 EU Classification** This product is provisionally labelled by the supplier in accordance to the EU regulations:

**15.2 Symbols**



**15.3 Risk Phrases:** T+: Very Toxic N: Dangerous for the environment  
**R10** - Flammable.  
**R21** - Harmful in contact with skin.  
**R25** - Toxic if swallowed.  
**R26** - Very toxic by inhalation.  
**R38** - Irritating to skin.  
**R41** - Risk of serious damage to eyes.  
**R50/53** - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**15.4 Safety phrases:** **S01/02** - Keep locked up and out of reach of children.  
**S13** - Keep away from food, drink and animal feedingstuffs.  
**S20/21** - When using, do not eat, drink or smoke.  
**S24/25** - Avoid contact with skin and eyes.  
**S26** - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
**S35** - This material and its container must be disposed of in a safe way.  
**S36/37/39** - Wear suitable protective clothing, gloves and eye/face protection.  
**S42** - During fumigation/spraying wear suitable respiratory equipment.  
**S45** - In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible).  
**S61** - Avoid release to the environment. Refer to special instructions/Safety data sheets.

<b>16. OTHER INFORMATION</b>
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<b>Disclaimer:</b>
The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if we have been advised of the possibility of such



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damages.