



Thionex SC

R-9055.G

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Trade name : Thionex SC
Chemical formula : Endosulfan : C₉H₆Cl₆O₃S, 1,2,3,4,7,7-Hexachloro-8,9,10-trinorborn-2-en-5,6-ylenedimethyl sulphite : C₉H₆Cl₆O₃S,
Use : Insecticide
Company identification : Makhteshim-Agan SA (Pty) Ltd
21 Viben Street
PO Box 498
Brackenfell 7561
Emergency phone nr : +27-21-9821460

2. HAZARDS IDENTIFICATION

Human health hazards : Toxic in contact with skin and if swallowed.
Environmental hazard : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. COMPOSITION / INFORMATION ON INGREDIENTS

This product is considered to be hazardous and contains hazardous components.

Substance name	Value(s)	CAS No	EC No	Index No	Classification
Endosulfan (ISO)	50 %	115-29-7	204-079-4	602-052-00-5	T; R24/25 Xi; R36 N; R50-53

4. FIRST AID MEASURES

Effects and symptoms : Exposure may result in systemic poisoning : convulsions , dizziness , weakness , headache , confusion , ataxia (impaired locomotor coordination) and coma , bronchospasm and lung oedema .
Inhalation : May result in systemic poisoning.
Ingestion : May result in systemic poisoning.
Skin contact : May result in systemic poisoning.
Eye contact : Redness , tears .
First aid
Inhalation : Immediately get medical attention. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Remove victim to fresh air. Keep victim warm and at rest.
Ingestion : If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Do not induce vomiting. Wash out mouth with plenty of water. Never give anything by mouth to an unconscious person. Immediately get medical attention.
Skin contact : Remove affected clothing and wash all exposed skin area with soap and water, followed by warm water rinse. Obtain medical attention.
Eye contact : Wash off with plenty of water .
Immediately consult an eye specialist.
Note to physician : There is no specific antidote. Treat symptomatically and give supportive therapy. If ingested perform gastric lavage or treat with IPECAC (use IPECAC only if victim is conscious). Administer activated charcoal If victim is suffering from convulsions treat with Diazepam, Phenobarbital

5. FIRE-FIGHTING MEASURES

Extinguishing media : For small fire : dry chemical , carbon dioxide .
For large fire: water spray , alcohol resistant foam .
Special procedures : Fight fires from a protected location . Dike fire control water for later disposal.



Thionex SC

R-9055.G

5. FIRE-FIGHTING MEASURES (continued)

- Special exposure hazards** : Thermal decomposition may generate : carbon monoxide , carbon dioxide , hydrogen chloride , sulfur oxide , chlorides .
- Protection against fire** : Wear suitable protective clothing . Self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Use appropriate protection (see section 8).
- Environmental precautions** : Dispose of this material and its container at hazardous or special waste collection point. If the product has contaminated surface water, inform the appropriate authorities. Contaminated soil layers have to be dug out.
- After spillage and/or leakage** : 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

- Handling** : Do not breathe fumes . Avoid contact with skin and eyes.
- Storage** : Keep locked up . Keep container tightly closed. Keep only in the original container in a cool, well-ventilated place . Keep container dry.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- 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.
- Personal protection**
- **Respiratory protection** : During spraying wear suitable respiratory equipment.
 - **Skin protection** : Wear suitable protective clothing and chemical resistant boots .
 - **Hand protection** : Wear suitable gloves.
 - **Eye protection** : Chemical goggles or safety glasses.
- Occupational Exposure Limits**
- TLV [mg/m³]** : (USA) Endosulfan : 0.1, A4 skin (1996)
- MAC [mg/m³]** : TWA, Endosulfan : 0.1 (skin)

9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state** : Liquid
- Colour** : Creamy
- Odour** : Faint characteristic
- pH value** : 5-8
- Specific gravity** : 1.21-1.25
- Molecular weight** : Endosulfan : 406.96
- Melting point [°C]** : Endosulfan : 70-100
- Final boiling point [°C]** : Endosulfan : 106°C (pressure of 0.9 mbr)
- Vapour pressure mm/Hg** : Endosulfan : 1.2 Pa (80°C)
- Solubility in water** : Dispersible
Endosulfan : 0.32 mg/l (22°C)
- Flammability** : Not flammable
- Explosion limits** : Not explosive



Thionex SC

R-9055.G

10. STABILITY AND REACTIVITY

- Physico-chemical stability** : Stable under normal conditions.
- Hazardous decomposition products** : Thermal decomposition may generate : carbon monoxide , carbon dioxide , hydrogen chloride , sulfur oxide , chlorides .
- Hazardous reactions** : Avoid contact with : strong oxidizing agents , strong acids , strong bases , iron .
- Hazardous Polymerization** : Will not occur.
- Conditions to avoid** : Protect from (sun)light and excessive heat . Sensitive to moisture .

11. TOXICOLOGICAL INFORMATION

- Acute toxicity** : No toxicological information is known on the product.
Toxicological information is known for the product THIONEX TECHNICAL:
- Rat oral LD50 [mg/kg]** : 43
- Rabbit dermal LD50 [mg/kg]** : 114, intact skin
- Rat inhalation LC50 [mg/l/4h]** : 21 mg/m³/1h
- Dermal irritation (rabbit)** : Not irritant
- Eyes irritation (rabbit)** : Not irritant
- Sensitization** : Guinea pig maximization test: Non sensitizer
- Carcinogenicity** : Endosulfan : Not carcinogenic
- Mutagenicity** : Endosulfan : Not mutagenic
- Reproductive toxicity** : Endosulfan : Not teratogenic in animal experiments

12. ECOLOGICAL INFORMATION

- Ecological effects information** : The data below are for Endosulfan:
- LC50 - Rainbow trout [µg/l]** : 0.93
- LD50 Birds [mg/kg]** : 28
- Persistence and degradability** : Half-life time (t_{1/2}) = ISOMER ALPHA, 60 days (soil)
Half-life time (t_{1/2}) = ISOMER BETA, 800 days (soil)
- Mobility** : Product does not leach to ground water.
- Bioaccumulative potential** : BCF=1.97 (fish)

13. DISPOSAL CONSIDERATIONS

- Disposal** : Avoid release to the environment.
Dispose in a safe manner in accordance with local/national regulations.

14. TRANSPORT INFORMATION

- **UN No.** : 2996
- **Proper shipping name** : ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC (50% Endosulfan)
- **Packing group** : III
- **Class** : 6.1
- **H.I. nr :** : 60
- **IMDG-Marine pollution** : YES

15. REGULATORY INFORMATION

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



Thionex SC

R-9055.G

15. REGULATORY INFORMATION (continued)

Symbol(s)



: T: Toxic
N: Dangerous for the environment.

R Phrase(s)

: R24/25 - Toxic in contact with skin and if swallowed.
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S Phrase(s)

: S01/02 - Keep locked up and out of reach of children.
S28 - After contact with skin, wash immediately with plenty of
S36/37 - Wear suitable protective clothing and gloves.
S38 - In case of insufficient ventilation, wear suitable respiratory equipment.
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible).
S60 - This material and its container must be disposed of as hazardous waste.
S61 - Avoid release to the environment. Refer to special instructions/Safety data sheets.

16. OTHER INFORMATION

Recommended uses and restrictions : None.

Text of R-phrases in heading 3 : : R24/25 - Toxic in contact with skin and if swallowed.
R36 - Irritating to eyes.
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Print date : 8 / 9 / 2009

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

End of document