



# MATERIAL SAFETY DATA SHEET

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Revised edition no : 2

Date : 6 / 6 / 2010

Supersedes : 29 / 1 / 2008

## LINUREX 50 SC

**H-0035 (20195)**

### 1. Identification of the substance/mixture and of the company/undertaking

**Trade name** : LINUREX 50 SC  
**Chemical description** : Linuron (ISO): 3-(3,4-Dichlorophenyl)-1-methoxy-1-methylurea.  
**Use** : Herbicide  
**Company identification** : Agan Chemical Manufacturers Ltd.  
P.O.B. 262  
ASHDOD Israel  
MSDS@ma-industries.com  
**Emergency phone nr** : +972-8-8515211

### 2. Hazards identification

**Human health hazards** : Limited evidence of a carcinogenic effect. Harmful : danger of serious damage to health by prolonged exposure if swallowed. May cause harm to the unborn child  
Possible risk of impaired fertility.  
**Environmental hazard** : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 3. Composition/information on ingredients

Substance name	Value(s)	CAS No	EC No	Index No	REACH Reg.	Classification
Linuron (ISO)	: 40 - 45 %	330-55-2	206-356-5	006-021-00-1	-----	Carc. Cat. 3; R40 Repr. Cat. 2; R61 Repr. Cat. 3; R62 Xn; R22-48/22 N; R50-53
Ethylene Glycol	: 4 - 6 %	107-21-1	203-473-3	603-027-00-1	-----	Xn; R22

### 4. First aid measures

**First aid**  
**Ingestion** : Wash out mouth with plenty of water. Never give anything by mouth to an unconscious person. Get medical attention.  
**Skin contact** : Remove contaminated clothing and shoes. Wash away remainder with plenty of water.  
**Eye contact** : Wash out with plenty of water with the eyelid held wide open for at least 15 minutes. Get medical attention.  
**Inhalation** : Remove victim to fresh air. If breathing is difficult: artificial respiration. Get medical attention.  
**Note to physician** : No specific antidote known. Treat symptomatically and give supportive therapy.  
**Protection of first-aiders** : Use appropriate protection (see section 8).

### 5. Fire-fighting measures

**Extinguishing media** : For small fire : dry chemical powder , water spray carbon dioxide  
For large fire : foam , water fog , water spray.  
**Protection of fire-fighters** : Self-contained breathing apparatus and total protection required in enclosed areas.

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### 5. Fire-fighting measures (continued)

**Hazardous decomposition products** : Chloride compounds , nitrogen oxides (NO, NO<sub>2</sub>...) , carbon oxides (CO, CO<sub>2</sub>) .

### 6. Accidental release measures

**Personal precautions** : Wear suitable protective clothing, gloves and eye/face protection.  
**Environmental precautions** : Do not empty into drains Do not discharge into the environment.  
**After spillage and/or leakage** : Absorb in sand or other inert material. Collect spills and put it into appropriated container. Dispose of this material and its container at hazardous or special waste collection point.

### 7. Handling and storage

**Handling** : Ventilation required.  
**Storage** : Keep in original containers. Keep away from food, drink and animal feeding stuffs. Store in dry, well-ventilated area.  
**Precautions in handling and storage** : Handle in accordance with good industrial hygiene and safety procedures.  
**Storage - away from** : Direct sunlight .

### 8. Exposure controls/personal protection

**Engineering measures** : Ventilation required.  
**Industrial hygiene** : Wash hands thoroughly after handling. When using do not eat, drink or smoke. Wash clothing before re-using.  
**Personal protection**  
- **Respiratory protection** : No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation. .  
- **Skin protection** : Wear suitable protective clothing Wear safety boots.  
- **Hand protection** : Wear suitable gloves.  
- **Eye protection** : Chemical goggles or safety glasses.  
**Occupational Exposure Limits**  
**TLV** : **Linuron (ISO): No data available.**

### 9. Physical and chemical properties

**Physical state** : Liquid  
**Colour** : Beige  
**Odour** : Faint odour  
**pH value** : 7-8.5  
**Density [g/ml]** : 1.16 - 1.2 @ 20°C  
**Vapour pressure [mPa]** : 0.05@ 20°C (Linuron (ISO)).  
**Solubility in water** : Miscible  
**Boiling point [°C]** : 100 (water).

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### 9. Physical and chemical properties (continued)

Log P octanol / water	: 3.07 (Linuron (ISO)).
Flammability	: Not flammable
Explosion properties	: Not explosive
Oxidizing properties	: Not oxidizing

### 10. Stability and reactivity

Stability	: Stable under normal conditions.
Hazardous decomposition products	: Chloride compounds , nitrogen oxides (NO, NO2...) , carbon oxides (CO, CO2) .
Materials to avoid	: oxidizing agents , acids , alkali .

### 11. Toxicological information

On product	
Oral, Rat LD50 [mg/kg]	: ~5,000
Dermal, Rat LD50 [mg/kg]	: > 2,000
Inhalation, Rat LC50 [mg/l/4h]	: >4.66
Skin corrosion/ irritation	: Mildly irritating
Serious eye damage/ irritation	: Minimal irritant
Respiratory or skin sensitization	: Mild sensitizer
Carcinogenicity	<b>Linuron (ISO):</b> : EPA Group C: Possible human carcinogen EU: Carc.Cat. 3
Germ cell mutagenicity	: (Linuron): Not mutagenic
Reproductive toxicity	: Repr.Cat. 2 + Repr.Cat.3 .
Teratogenicity	: (Linuron): Not teratogenic in animal experiments

### 12. Ecological information

On product	
96 H-LC50 - Rainbow trout [mg/l]	: 15.4
48 H-EC50 - Daphnia magna [mg/l]	: 4.1
72H- EC50 - Algae [mg/l]	: 0.1
LD50 Birds [mg/kg]	: (Linuron (ISO)): Bobwhite quail =314
Bees LD50 [µg/Bee]	: Not toxic to bees
Persistence and degradability	<b>(Linuron (ISO)): Soil :</b> : Half-life time (t1/2) Field:13-82 days. <b>Water :</b> : Half-life time (t1/2) : 48 days.
Mobility	<b>(Linuron (ISO)): Soil :</b> : Not mobile . Adsorbed on organic matter and clay.

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### 12. Ecological information (continued)

**Bioaccumulative potential** : **Water :**  
: Low risk of underground water contamination.  
: (Linuron (ISO)): BCF: 38-49

### 13. Disposal considerations

**Disposal** : Dispose of in a pesticide approved landfill, or in a chemical incinerator equipped with scrubbers. Dispose in a safe manner in accordance with local/national regulations.

### 14. Transport information

- **UN No.** : 3082  
- **Proper shipping name** : UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.( LINURON(ISO)), 9, III  
- **Packing group** : III  
- **Class** : 9  
- **H.I. nr :** : 90  
- **IMDG-Marine pollution** : YES

### 15. Regulatory information

**EU Classification** : According to Commission Directive 67/548/EEC, 1999/45/EC and its amendments  
**Symbol(s)**



**R Phrase(s)** : T: Toxic  
N: Dangerous for the environment.  
: R40 - Limited evidence of a carcinogenic effect.  
R48/22- Harmful: danger of serious damage to health by prolonged exposure if swallowed.  
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R61- May cause harm to the unborn child.  
R62- Possible risk of impaired fertility.

**S Phrase(s)** : S02 - Keep out of the reach of children.  
S13- Keep away from food, drink and animal feedingstuffs.  
S20- When using do not eat or drink.  
S29/35- Do not empty into drains; dispose of this material and its container in a safe way.  
S36/37- Wear suitable protective clothing and gloves.  
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
S57- Use appropriate containment to avoid environmental contamination.  
S61 - Avoid release to the environment. Refer to special instructions/Safety data sheets.



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## 15. Regulatory information (continued)

## 16. Other information

**List of full text of R-phrases in section 3.**

: R22 - Harmful if swallowed.  
R40 - Limited evidence of a carcinogenic effect.  
R48/22 - Harmful : danger of serious damage to health by prolonged exposure if swallowed.  
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R61 - May cause harm to the unborn child.  
R62 - Possible risk of impaired fertility.

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