

# SAFETY DATA SHEET

## LINUREX 50 SC

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

**Product name** : LINUREX 50 SC  
**Chemical name of active ingredient(s)** : 3-(3,4-Dichlorophenyl)-1-methoxy-1-methylurea  
**Manufacturer** : Agan Chemical Manufacturers Ltd.  
 Northern Industrial Zone,  
 P.O.Box 262, Ashdod, Israel.  
**Supplier** : Makhteshim-Agan (UK) Ltd.  
 Unit 16, Thatcham Business Village  
 Colthrop Way, Thatcham  
 Berkshire RG19 4LW, U.K.  
**Emergency telephone number** : National Chemical Emergency Centre, Tel:01865 407333.

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance/preparation** : Preparation

**Information on hazardous ingredients** \*

Common name	CAS No.	%	EC Number	Symbol	R-Phrases
Linuron (ISO)	330-55-2	40 - 45	206-356-5	T,N	R22-40-48/22-50/-53-61-62
Ethylene Glycol	107-21-1	8 - 9	203-473-3	Xn	R22

\* *Occupational Exposure Limit(s), if available, are listed in section 8*

### 3. HAZARDS IDENTIFICATION

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

### 4. FIRST-AID MEASURES

**Effects and symptoms**

**First-aid measures** : Remove victim from area of exposure. Wash off remaining material with plenty of water.

**Inhalation** : Remove victim to fresh air. If breathing is difficult: artificial respiration. Get medical attention.

**Ingestion** : Wash out mouth with plenty of water. Get medical attention. Never give anything by mouth to an unconscious person.

**Skin contact** : Remove contaminated clothing. Wash away remainder with water and soap.

**Eye contact** : Wash out with plenty of water with the eyelid held wide open for at least 15 minutes. Get medical attention.

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**Notes to a physician** : There is no specific antidote. Treat symptomatically and give supportive therapy.  
**Protection of first-aiders** : Use appropriate protection (see section 8).

#### 5. FIRE-FIGHTING MEASURES

**Extinguishing media**

**Suitable** : Dry chemical, water spray, foam, carbon dioxide.  
**Hazardous thermal (de)composition products** : Chloride compounds and nitrogen oxides  
**Protection of fire-fighters** : Self-contained breathing apparatus and total protection required in enclosed areas.

#### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions** : Wear suitable protective clothing.  
**Environmental precautions** : Do not discharge into drains or the environment.  
**Methods for cleaning up** : Absorb remainder in sand or other inert material. Dispose of in an authorized waste collecting point.

#### 7. HANDLING AND STORAGE

**Handling** : Ventilation required.  
**Storage** : Keep only in the original container. Keep in a cool, dry, well ventilated place away from direct sunlight.  
**Packaging materials**  
**Suitable** : Plastic containers.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering measures** : Ventilation required.  
**Hygiene measures** : When handling do not eat, drink or smoke. Wash hands thoroughly after handling. Wash clothing separately before re-use.  
**Occupational Exposure Limits**  
**Common name** : **Linuron (ISO)**  
: Not established  
**Personal protective equipment**  
**Respiratory system** : Respiratory protection is not required if good ventilation is maintained.  
**Skin and body** : Wear suitable protective clothing. Chemical resistant boots.  
**Hands** : Chemical resistant gloves.  
**Eyes** : Safety goggles or face shield.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state** : Liquid  
**Colour** : Beige  
**Odour** : Faint odour

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<b>Boiling point</b>	: 100°C (Water)
<b>Density</b>	: 1.18 ± 0.02 g/mL @ 20°C
<b>Vapour pressure</b>	: 0.05 mPa @ 20°C (Linuron (ISO))
<b>Solubility in water</b>	: 63.8 mg/L @ 20°C (Linuron (ISO))
<b>Octanol/water partition coefficient</b>	: log P = 3.0 (Linuron (ISO))
<b>pH</b>	: 7 - 8.5 CIPAC, MT 75
<b>Flammability</b>	: Not flammable
<b>Explosion properties</b>	: Not explosive
<b>Oxidation properties</b>	: Not oxidizing

#### 10. STABILITY AND REACTIVITY

<b>Stability</b>	: Not subject to polymerization.
<b>Materials to avoid</b>	: Oxidizing agents, acids and alkali.
<b>Hazardous reactions</b>	: None
<b>Hazardous decomposition products</b>	: Chloride compounds and nitrogen oxides.

#### 11. TOXICOLOGICAL INFORMATION

##### Preparation

<b>Acute toxicity - Oral</b>	: LD <sub>50</sub> (rat) ~ 5,000 mg/kg
<b>Acute toxicity - Dermal</b>	: LD <sub>50</sub> (rabbit) > 2,000 mg/kg
<b>Acute toxicity - Inhalation</b>	: LC <sub>50</sub> (rat) > 4.66 mg/L (4 hours)
<b>Skin irritation</b>	: Mildly irritating (rabbit)
<b>Eye irritation</b>	: Minimal irritant (rabbit)
<b>Sensitization</b>	: Mild sensitizer (guinea-pig).
<b>Common name</b>	: <b>Linuron (ISO)</b>
<b>Chronic toxicity</b>	: NOAEL (rat) = 25 ppm or 1.3 mg/kg/day (2 years) NOAEL (mouse) = 50 ppm or 6.5 mg/kg/day (2 years)
<b>Carcinogenicity</b>	: EPA : Group C EU : Carc. Cat. 3 IARC : Not classified
<b>Mutagenicity</b>	: Not mutagenic
<b>Reproduction toxicity</b>	: NOAEL (rat) = 0.8 - 1.0 mg/kg/day. Repr. Cat. 2 and 3
<b>Other information</b>	: Teratogenicity - NOAEL (rat) = 20 mg/kg/day (Maternal and Fetal) NOAEL (rabbit) = 10 mg/kg/day (Maternal) ; 25 mg/kg/day (Fetal)

#### 12. ECOLOGICAL INFORMATION

##### Preparation

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<b>Ecotoxicity</b>	<p>: <b><u>Fish</u></b>  LC<sub>50</sub> (96 hours) rainbow trout = 15.4 mg/L  <b><u>Daphnia magna</u></b>  EC<sub>50</sub> (48 hours) = 4.1 mg/L  <b><u>Algae</u></b> (scenedesmus subspicatus)  EC<sub>50</sub> (72 hours) = 0.1 mg/L  <b><u>Bees</u></b>  Oral LD<sub>50</sub> &gt; 197 µg/bee  Contact LD<sub>50</sub> &gt; 200 µg/bee</p> <p>Very toxic to aquatic organisms. Non toxic: bees.</p>
<b><u>Common name</u></b>	: <b>Linuron (ISO)</b>
<b><u>Mobility</u></b>	<p>: <b><u>Soil</u></b>  Not mobile.  Adsorbed on organic matter and clay.  K<sub>d</sub> = 2.2 - 18 mL/g  K<sub>oc</sub> = 410 - 463 mL/g  <b><u>Water</u></b>  Low risk of underground water contamination.</p>
<b><u>Persistence/degradability</u></b>	<p>: <b><u>Soil</u></b>  Lab. - Half-life time (t<sub>1/2</sub>): 38-135 days (15-25°)  Field - DT<sub>50</sub>: 13-82 days.  Degradation is primarily via: microorganisms.  <b><u>Water</u></b>  DT<sub>50</sub>: 48 days.</p>
<b><u>Bioaccumulative potential</u></b>	: BCF : 38-49.
<b><u>Ecotoxicity</u></b>	<p>: <b><u>Fish</u></b>  LC<sub>50</sub> (96 hours) rainbow trout (oncorhynchus mykiss) = 3.15 mg/L  NOEC (21 days) rainbow trout (oncorhynchus mykiss) = 0.1 mg/L  <b><u>Daphnia magna</u></b>  EC<sub>50</sub> (24 hours) = 0.31 mg/L  NOEC (21 days) = 0.18 mg/L  <b><u>Algae</u></b> (scenedesmus subspicatus)  EC<sub>50</sub> (72 hours) = 0.016 mg/L  <b><u>Birds</u></b>  Bobwhite quail (colinus virginianus) LD<sub>50</sub> = 314 mg/kg  Bobwhite quail (colinus virginianus) LC<sub>50</sub> = 1,250 ppm (8-day feeding)  <b><u>Bees</u></b>  Oral LD<sub>50</sub> &gt; 160 µg/bee  Contact LD<sub>50</sub> &gt; 1,600 µg/bee</p> <p>Very toxic to aquatic organisms. Low toxicity: birds. Non toxic: bees.</p>

### 13. DISPOSAL CONSIDERATIONS

**Methods of disposal** : Dispose of in a pesticide approved landfill or in a chemical incinerator equipped with scrubbers, In accordance with national and regional regulations.

### 14. TRANSPORT INFORMATION

**International transport regulations**

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### LINUREX 50 SC

**UN number** : 3082

**Land - Road/Railway**

**Proper shipping name** : Environmentally hazardous substance, Liquid, N.O.S., Linuron (ISO).

**ADR/RID Class** : 9, M6, PG III

**Hazard Identification Number** : 90

**Inland waterways**

**Proper shipping name** : Environmentally hazardous substance, Liquid, N.O.S., Linuron (ISO).

**ADNR Class** : 9, M6, PG III

**Sea**

**Proper shipping name** : Environmentally hazardous substance, Liquid, N.O.S., Linuron (ISO).

**IMDG Class** : 9 + Marine pollutant

**Packing group** : III

**Emergency Schedules (EmS)** : F-A, S-F

**Air**

**Proper shipping name** : Environmentally hazardous substance, Liquid, N.O.S., Linuron (ISO).

**UN/ID Number** : 3082

**IATA-DGR Class** : 9, PG III

**National transport regulations**

No additional national transport regulations are known to the supplier

#### 15. REGULATORY INFORMATION

**Classification** : This product is provisionally labelled by the supplier in accordance with the suppliers understanding of the EU regulations (Directives 67/548/EEC, 1999/45/EC).

**Hazard symbol(s)** : T, N



TOXIC



DANGEROUS FOR THE ENVIRONMENT

**Risk phrases** : 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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#### Safety phrases

: S02: Keep out of the 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.  
S35: This material and its container must be disposed of in a safe way.  
S36/37: Wear suitable protective clothing and gloves.  
S46: If swallowed, seek medical advice immediately and show this container or label.  
S57: Use appropriate containment to avoid environmental contamination.  
S61: Avoid release to the environment. Refer to special instructions/Safety data sheets.

#### 16. OTHER INFORMATION

The information contained in the Safety Data sheet is correct to the best of our knowledge at the date of issue. It is intended as a guide for the safe use, handling, disposal, storage and transportation and is not intended as a warranty or as a specification. The information relates only to the product specified and may not be suitable for combinations with other materials or in processes other than those specifically described herein.

#### HISTORY

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