



# MATERIAL SAFETY DATA SHEET

Page : 1

Revised edition no : 1

Date : 29 / 1 / 2008

Supersedes : 0 / 0 / 0

## AFALON 500 SC

**H-0035 (20195)**

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

**Trade name** : AFALON 500 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	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**  
**Inhalation** : Remove victim to fresh air. If breathing is difficult: artificial respiration . Get medical attention.  
**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.  
**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.  
**Hazardous decomposition products** : Chloride compounds , nitrogen oxides (NO, NO2...) , carbon oxides (CO, CO2) .  
**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, 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

**Agan Chemical Manufacturers Ltd.**P.O.B. 262 ASHDOD Israel  
MSDS@ma-industries.com



# MATERIAL SAFETY DATA SHEET

Page : 2

Revised edition no : 1

Date : 29 / 1 / 2008

Supersedes : 0 / 0 / 0

**AFALON 500 SC****H-0035 (20195)**

## 6. ACCIDENTAL RELEASE MEASURES (continued)

collection point.

## 7. HANDLING AND STORAGE

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

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Engineering measures</b>	: Ventilation required.
<b>Industrial hygiene</b>	: Wash hands thoroughly after handling. When using do not eat, drink or smoke. Wash clothing before re-using.
<b>Personal protection</b>	
- 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.
<b>Occupational Exposure Limits</b>	
TLV	<b>Linuron (ISO): No data available.</b>

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state</b>	: Liquid
<b>Colour</b>	: Beige
<b>Odour</b>	: Faint odour
<b>pH value</b>	: 7-8.5
<b>Density [g/ml]</b>	: 1.18± 0.02 @ 20°C
<b>Vapour pressure [mPa]</b>	: 0.05@ 20°C (Linuron (ISO)).
<b>Solubility in water</b>	: Miscible
<b>Boiling point [°C]</b>	: 100 (water).
<b>Log P octanol / water</b>	: 3.07 (Linuron (ISO)).
<b>Flammability</b>	: Not flammable
<b>Explosion properties</b>	: Not explosive
<b>Oxidation properties</b>	: Not oxidizing

## 10. STABILITY AND REACTIVITY

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

## 11. TOXICOLOGICAL INFORMATION

On product

**Agan Chemical Manufacturers Ltd.**

P.O.B. 262 ASHDOD Israel

MSDS@ma-industries.com



# MATERIAL SAFETY DATA SHEET

Page : 3

Revised edition no : 1

Date : 29 / 1 / 2008

Supersedes : 0 / 0 / 0

**AFALON 500 SC****H-0035 (20195)**

## 11. TOXICOLOGICAL INFORMATION (continued)

Rat oral LD50 [mg/kg]	: ~5,000
Rat dermal LD50 [mg/kg]	: > 2,000
Rat inhalation LC50 [mg/l/4h]	: >4.66
Dermal irritation (rabbit)	: Mildly irritating
Eyes irritation (rabbit)	: Minimal irritant
Sensitization	: Mild sensitizer
Carcinogenicity	<b>Linuron (ISO):</b> : EPA Group C: Possible human carcinogen EU: Carc.Cat. 3
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. <b>Water :</b> : Low risk of underground water contamination.
Bioaccumulative potential	: (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

**Agan Chemical Manufacturers Ltd.**

P.O.B. 262 ASHDOD Israel

MSDS@ma-industries.com



# MATERIAL SAFETY DATA SHEET

Page : 4

Revised edition no : 1

Date : 29 / 1 / 2008

Supersedes : 0 / 0 / 0

**AFALON 500 SC****H-0035 (20195)**

## 15. REGULATORY INFORMATION

**EU Classification** : According to Commission Directive 67/548/EEC and its amendments

**Symbol(s)**



: T: Toxic  
N: Dangerous for the environment.

**R Phrase(s)**

: 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.

## 16. OTHER INFORMATION

**Text of R-phrases in heading 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.

**Print date** : 10 / 12 / 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