



MATERIAL SAFETY DATA SHEET

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Revised edition no : 2

Date : 30 / 4 / 2009

Supersedes : 1 / 6 / 2008

PENDIGAN 330 EC

H-0020 (27793)

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

Trade name : PENDIGAN 330 EC
Chemical description : N-1(ethylpropyl)-2,6-dinitro-3,4-xylidine
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

Physical/Chemical Hazards : Flammable.
Human health hazards : Irritating to eyes and skin. Irritating to respiratory system.
Harmful : may cause lung damage if swallowed.
Vapours may cause drowsiness and dizziness.
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
Pendimethalin	: 30 - 34 %	40487-42-1	254-938-2	609-042-00-X	----- R43 N; R50-53
Solvent naphta light aromatic	: 59 - 64 %	64742-95-6	265-199-0	649-356-00-4	----- Xn; R65

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.
Special exposure hazards : Flashback may occur along vapour trail.
Hazardous decomposition products : Nitrogen oxide , 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.

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6. ACCIDENTAL RELEASE MEASURES (continued)

After spillage and/or leakage : Collect spills and put it into appropriated container. Absorb in sand or other inert material. 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 . Keep away from heat, sparks and flame.

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 : (Pendimethalin): No data available.
(Naphtha): =25 ppm.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : Liquid
Colour : Orange-brown. .
Odour : Aromatic (solvent).
pH value : 5-7
Density : 1.15±0.01 g/ml @ 20°C
Boiling point [°C] : 155-181°C (Naphtha).
Vapour pressure [mPa] : 4 @ 25°C (Pendimethalin).
Flash point [°C] : 45 °C
Log P octanol / water : 5.18 (Pendimethalin).
Flammability : Flammable
Explosion properties : Vapours : May form explosive mixtures with air.
Explosion limits - lower [%] : 0.8
Explosion limits - upper [%] : 7
Oxidation properties : Not oxidizing .

10. STABILITY AND REACTIVITY

Stability : Stable under normal conditions.
Hazardous decomposition products : Nitrogen oxide , carbon oxides (CO, CO2) .
Materials to avoid : oxidizing agents , acids , alkali .

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11. TOXICOLOGICAL INFORMATION

On product

Rat oral LD50 [mg/kg]	: >3,000
Rat dermal LD50 [mg/kg]	: > 4,000
Rat inhalation LC50 [mg/l/4h]	: >2.05
Dermal irritation (rabbit)	: Severe skin irritant. .
Eyes irritation (rabbit)	: Severely irritating .
Sensitization	: Non sensitizer
Carcinogenicity	Pendimethalin: : EPA Group C: Possible human carcinogen EU : not classified.
Mutagenicity	: (Pendimethalin): Not mutagenic
Reproductive toxicity	: No adverse health effects were noted.
Teratogenicity	: Not teratogenic in animal experiments

12. ECOLOGICAL INFORMATION

96 H-LC50 - Rainbow trout [mg/l]	: 0.1-1
96 Hour - LC50- fish [mg/l]	: (Pendimethalin 330 EC): Zebra fish =1-10
48 H-EC50 - Daphnia magna [mg/l]	: (Pendimethalin 330 EC): 1-10
72H- EC50 - Algae [mg/l]	: 0.01-0.1
LD50 Birds [mg/kg]	: Mallard duck >2,100
Bees LD50 [µg/Bee]	: Not toxic to bees
Persistence and degradability	(Pendimethalin): Soil : : Moderately persistent in soil . Water : : Half-life time (t1/2) <21 days. Product does not leach to ground water. .
Mobility	(Pendimethalin): Soil : : Not mobile . Adsorbed on organic matter and clay.

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.
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14. TRANSPORT INFORMATION

International transport regulations

- UN No.	: 1993
- Proper shipping name	: Flammable liquid, N.O.S. (Naphtha).
Land transport	
- H.I. nr :	: 30
- ADR/RID	: Class 3, F1, PG III
Sea transport	
- IMO-IMDG code	: Class 3, PG III+Marine pollutant.
- EMS-Nr	: F-E, S-E

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14. TRANSPORT INFORMATION (continued)

Air transport**- IATA - Class or division** : 3, PG III**National transport regulations** : No additional national regulations are available/required

15. REGULATORY INFORMATION

EU Classification : This product is provisionally labelled by the supplier in accordance with the suppliers understanding of the EU regulations**Symbol(s)** : N: Dangerous for the environment.
Xn: Harmful.**R Phrase(s)** : R10- Flammable.
R36/37/38 - Irritating to eyes, respiratory system and skin.
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65- Harmful: may cause lung damage if swallowed.
R67- Vapors may cause drowsiness and dizziness.**S Phrase(s)** : S1/2- Keep locked up and out of the reach of children.
S13 - Keep away from food, drink and animal feedingstuffs.
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.
S37- Wear suitable gloves.
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.
SP1 - Do not contaminate water with the product or its container.

16. OTHER INFORMATION

Text of R-phrases in heading 3 : : R43 - May cause sensitization by skin contact.
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65 - Harmful : may cause lung damage if swallowed.**Print date** : 4 / 3 / 2010

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