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

Trade name: ATRANEX 500 SC
Substance name: Atrazine: 6-chloro-N2-ethyl-N4-isopropy-1,3,5-triazine-2,4-diamine
Relevant identified uses: Herbicide
Company identification: ADAMA SOUTH AFRICA (PTY) LTD
21 Viben Street
Brackenfell 7560
Email: msds@mcw.co.il
Emergency phone nr: +27 82 331 6463
+27 21 982 1460

SECTION 2. Hazards identification

Human health hazards: May cause sensitization by skin contact. Harmful: danger of serious damage to health by prolonged exposure if swallowed.
Environmental hazard: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance name</th>
<th>Concentration % w/w</th>
<th>CAS No</th>
<th>EC No</th>
<th>Index No</th>
<th>REACH Reg.</th>
<th>Classification</th>
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</thead>
<tbody>
<tr>
<td>Atrazine</td>
<td>43 - 47 %</td>
<td>1912-24-9</td>
<td>217-617-8</td>
<td>613-068-00-7</td>
<td>-</td>
<td>Xn; R48/22</td>
</tr>
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<td>R43</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>N; R50-53</td>
</tr>
</tbody>
</table>

SECTION 4. First aid measures

First aid measures
Inhalation: Remove victim to fresh air. If breathing is difficult: artificial respiration. 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.
Ingestion: Wash out mouth with plenty of water. Never give anything by mouth to an unconscious person. 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).

SECTION 5. Fire-fighting measures

Suitable extinguishing media: For small fire: dry chemical powder, water spray carbon dioxide
For large fire: foam, water fog, water spray.
Protection against fire: Self-contained breathing apparatus and total protection required in enclosed areas.
Hazardous decomposition products: Chloride compounds, nitrogen oxides (NO, NO2), carbon oxides (CO, CO2).

SECTION 6. Accidental release measures

For emergency responders: Wear suitable protective clothing, gloves and eye/face protection.
Environmental precautions: Do not empty into drains. Do not discharge into the environment.
Clean up methods: 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.
SECTION 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.

SECTION 8. Exposure controls/personal protection

OEL (UK)-STEL [mg/m³] : Atrazine : 10
MAK - Germany [mg/m³] : Atrazine : 2
TLV - ACGIH [mg/m³] : Atrazine : 5

: Wash hands thoroughly after handling. When using do not eat, drink or smoke. Wash clothing before re-using.

Personal protection
- Respiratory protection : Respiratory protection is not required if good ventilation is maintained
- Hand protection : Wear suitable gloves.
- Skin protection : Wear suitable protective clothing Wear safety boots.
- Eye protection : Chemical goggles or safety glasses.

SECTION 9. Physical and chemical properties

Physical state at 20 °C : Liquid
Colour : White
Odour : Faint odour
pH value : 6-8
Melting point [°C] : 172-175
Boiling point [°C] : 100 (water)
Flammability : Not flammable
Vapour pressure [mPa] : 0.04 @ 25°C (Atrazine)
Density [g/ml] : 1.11± 0.02 @ 20° C
Solubility in water : Miscible
Log P octanol / water at 20°C : 2.44 (Atrazine)
Explosive Properties : Not explosive
Oxidising properties : Not oxidizing

SECTION 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.
SECTION 11. Toxicological information

On product
- Rat oral LD50 [mg/kg] : >2,000
- Dermal, Rat LD50 [mg/kg] : > 5,000
- Rat inhalation LC50 [mg/l/4h] : >5
Dermal irritation (rabbit) : Mildly irritating
Eyes irritation (rabbit) : Mildly irritating
Sensitization : Moderate sensitizer
Mutagenicity : (Atrazine): Not mutagenic
Carcinogenicity : (Atrazine): EPA Group C: Possible human carcinogen.
EU: Carc. Cat. 3
IARC classification: group 2B
Mutagenicity : (Atrazine): Not mutagenic
Carcinogenicity : (Atrazine): EPA Group C: Possible human carcinogen.
EU: Carc. Cat. 3
IARC classification: group 2B
Toxic for reproduction : Fertility
Atrazine: Not considered to be toxic for the reproductive system.
Toxic for reproduction : Atrazine: Not teratogenic in animal experiments

SECTION 12. Ecological information

On product
96 H-LC50 - Rainbow trout [mg/l] : 73
48 H-EC50 - Daphnia magna [mg/l] : 31
96 H - EC50 - Algae [mg/l] : 0.2
LD50 Birds [mg/kg] : Japanese quail >2,000
Bees LD50 [µg] : Not toxic to bees
Persistence - degradability : Atrazine: Soil :
The product is not persistent.
Half-life time (t1/2) : 16-77 days.
Atrazine: Water :
Half-life time (t1/2) : 10-105 days.
Mobility : Atrazine: Soil :
Moderately mobile
Bioaccumulative potential : Atrazine: Bioaccumulation in aquatic organisms is expected.

SECTION 13. Disposal considerations

General : 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.

SECTION 14. Transport information

UN No : 3082
Proper shipping name : UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(ATRAZINE), 9, III
- H.I. no : 90
- IMO-IMDG - class or division : 9
- Packing group : III
- IMDG-Marine pollution : Yes
SECTION 15. Regulatory information

Symbol(s) : Xn: Xn : Harmful.
N: N : Dangerous for the environment.

R Phrase(s) : R43 - May cause sensitization by skin contact.
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.

S Phrase(s) : S02 - Keep out of the reach of children.
S13- Keep away from food, drink and animal feedingstuffs.
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.
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.

SECTION 16. Other information

List of relevant R phrases (heading 3) : R43 - May cause sensitization by skin contact.
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.

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