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

Trade name : SUPRANEX 90 WG
Substance name : Atrazine: 6-chloro-N2-ethyl-N4-isopropyl-1,3,5-triazine-2,4-diamine
Tebuthylazine: N2-tert-butyl-6-chloro-N4-ethyl-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
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

Substance name	Concentration % w/w	CAS No	EC No	Index No	REACH Reg.	Classification
Atrazine	: 43 - 47 %	1912-24-9	217-617-8	613-068-00-7	----	Xn; R48/22 R43 N; R50-53
Terbuthylazine	: 43 - 47 %	5915-41-3	227-637-9	-----	----	N; R50-53

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) .

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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	: Collect spills and put it into appropriated container. Dispose of this material and its container at hazardous or special waste collection point. Keep away from combustible material.

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

TLV©	: Terbutylazine: Data not available.
	: Ventilation required.
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	: Dust mask
• 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	: Granules
Colour	: Whitish
Odour	: Faint odour
Flammability	: Not flammable
Vapour pressure [mPa]	: 0.04 @ 25°C (Atrazine) 0.15 @ 25 °C (Terbutylazine)
Bulk density [g/cc]	: 0.5
Solubility in water	: Miscible
Log P octanol / water at 20°C	: 2.44 (Atrazine) 3.04 (Terbutylazine)
Explosive Properties	: Not explosive
Oxidising properties	: Not oxidizing

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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	: Based on data of ingredients
- Rat oral LD50 [mg/kg]	: >2,000
- Dermal, Rat LD50 [mg/kg]	: > 2,000
Mutagenicity	: Atrazine: Not mutagenic Terbuthylazine: Not mutagenic
Carcinogenicity	: Atrazine: : EPA Group C: Possible human carcinogen. EU: Carc.Cat. 3 IARC classification: group 2B : Terbuthylazine: : EPA: Group D EU , IARC : Not classified
Toxic for reproduction : Fertility	: Not considered to be toxic for the reproductive system.
Toxic for reproduction	: Not teratogenic in animal experiments

SECTION 12. Ecological information

Ecological effects information	
96 H-LC50 - Bluegill sunfish [mg/l]	: Terbuthylazine: 7.5
LC50 96 Hour - fish [mg/l]	: Atrazine : Guppy=5.31
96 H-LC50 - Rainbow trout [mg/l]	: Terbuthylazine: 3.8-4.6
48 H-EC50 - Daphnia magna [mg/l]	: Atrazine : 44 Terbuthylazine: 21.2
72 H-EC50 - Algae [mg/l]	: Atrazine : 3.14 Terbuthylazine : 0.016
LD50 Birds [mg/kg]	: Atrazine : Bobwhite quail >2,000 Terbuthylazine: Mallard duck >1,000
Birds LC50 [ppm]	: Terbuthylazine: (8 day feeding): Mallard duck >5,620
LD50 - Japanese quail [mg/kg]	: Atrazine : 1796
Bees LD50 [µg]	: (Atrazine & Terbuthylazine) : Oral & Contact > 100
Persistence - degradability	: Atrazine : Soil : : The product is not persistent. Half-life time (t1/2) : 16-77 days. Degradation is primarily via: chemical hydrolysis : Atrazine : Water : : Half-life time (t1/2) :10-105 days. : Terbuthylazine: Soil : : The product is persistent to some extent. Adsorbed on organic matter and clay. Half-life time (t1/2) : 30-60 days Degradation is primarily via: microorganisms : Terbuthylazine: Water : : Half-life time (t1/2) : 86 days (pH 5) Half-life time (t1/2) : 25 DAYS (natural water)
Mobility	: Atrazine : Soil : Moderately mobile Koc 39-173 ml/g Kd 0.2-18 ml/g

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SECTION 12. Ecological information (continued)

	: Terbuthylazine: Soil :
	: Low mobility
	Koc 162-278 ml/g
	Kd 2.5-25 ml/g
Bioaccumulative potential	: Atrazine: Low bioaccumulation potential
	Terbuthylazine: Low bioaccumulation potential



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.
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SECTION 14. Transport information

UN N°	: 3077
Proper shipping name	: Environmentally hazardous substances, solid, N.O.S. (Atrazine, Terbuthylazine).
- H.I. no	: 90
Land transport (ADR-RID)	
ADR - Special provision	: Class 9, M7, PG III
Sea transport (IMDG) [English only]	
- IMO-IMDG code	: Class 9, PG III
- Emergency Schedule (EmS) - Fire	: F-A, S-F
- IMDG-Marine pollution	: Yes
Air transport (ICAO-IATA) [English only]	
- IATA - class or division	: 9, PG III
International transport regulations	
National transport regulations	: No additional national regulations are available/required

SECTION 15. Regulatory information

EU Classification	: According to Commision Directive 67/548/EEC, 1999/45/EC and its amendments
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. 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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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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