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TRIFLUREX 480 EC		H-00470 (40032)

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

Trade name : TRIFLUREX 480 EC
Substance name : Trifluralin (ISO): a,a,a-trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine.
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

Physical/Chemical Hazards : Flammable.
Human health hazards : Limited evidence of a carcinogenic effect.
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
Trifluralin (ISO)	: 44 - 48 %	1582-09-8	216-428-8	609-046-00-1	----	Carc. Cat. 3; R40 R43 N; R50-53 (M fact. = 10)
Calcium dodecylbenzene sulphonate	: 3 - 4 %	26264-06-2	247-557-8	-----	----	Xi; R38-41
Xylene	: 45 - 50 %	1330-20-7	215-535-7	601-022-00-9	----	R10 Xn: R20/21 Xi; R38

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.
Specific hazards : Flashback may occur along vapour trail.
Protection against fire : Self-contained breathing apparatus and total protection required in enclosed areas.
Hazardous decomposition products : Fluoride 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	: 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. 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©	: Trifluralin (ISO): Data not available. : Xylene: 100 ppm : Ventilation required.
OEL (UK)-STEL [ppm]	: Xylene: 100
TRGS 900 - Germany [ppm]	: Xylene: 100
	: 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. .
• 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	: Orange
Odour	: Aromatic (solvent).
pH value	: 5-6
Boiling point [°C]	: 137-143 (Xylene).
Flash point [°C]	: 29 (closed cup).
Flammability	: Flammable
Vapour pressure [mPa]	: 13.7@ 25°C (Trifluralin (ISO)).
Density [g/l]	: 1.05± 0.015 @ 20°C
Solubility in water	: Miscible
Log P octanol / water at 20°C	: 5.14 (Tifluralin (ISO)).
Auto-ignition temperature [°C]	: 450 (Xylene).
Explosive Properties	: Xylene: May form explosive mixtures with air.
Oxidising properties	: Not oxidizing

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SECTION 10. Stability and reactivity

Stability	: Not subject to polymerization.
Hazardous decomposition products	: Fluoride 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]	: > 2,000
- Rat inhalation LC50 [mg/l/4h]	: >5.13
Dermal irritation (rabbit)	: Not irritant
Eyes irritation (rabbit)	: Slight irritant
Sensitization	: Non sensitizer
Mutagenicity	: Trifluralin: Not mutagenic
Carcinogenicity	: Trifluralin: EPA Group C: Possible human carcinogen. EU: Carc.Cat. 3
Toxic for reproduction : Fertility	: Trifluralin: Not considered to be toxic for the reproductive system.
Toxic for reproduction	: Trifluralin: Not teratogenic in animal experiments

SECTION 12. Ecological information

On product	
96 H-LC50 - Rainbow trout [mg/l]	: 0.24
48 H-EC50 - Daphnia magna [mg/l]	: 2.6
72 H-EC50 - Algae [mg/l]	: 0.075
LD50 Birds [mg/kg]	: Japanese quail >2,000
Bees LD50 [µg]	: Not toxic to bees
Persistence - degradability	: Trifluralin: Soil : : Moderately persistent in soil. Half-life time (t1/2) ~ 45 days. Water : The product is not biodegradable . Half-life time (t1/2) 4.9-5.8 days. Low risk of underground water contamination.
Bioaccumulative potential	: Trifluralin: 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°	: 1993
Proper shipping name	: UN1993 FLAMMABLE LIQUID, N.O.S.(XYLENE), 3, III
- H.I. no	: 30
- IMO-IMDG - class or division	: 3
- Packing group	: III
- IMDG-Marine pollution	: Yes

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SECTION 15. Regulatory information

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

Symbol(s)



R Phrase(s)

: N: N : Dangerous for the environment.
: R10- Flammable.
R40 - Limited evidence of a carcinogenic effect.
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.
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) : R10 - Flammable.
R20/21 - Harmful by inhalation and in contact with skin.
R38 - Irritating to skin.
R40 - Limited evidence of a carcinogenic effect.
R41 - Risk of serious damage to eyes.
R43 - May cause sensitization by skin contact.
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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