



MATERIAL SAFETY DATA SHEET

Page : 1

Revised edition no : 1

Date : 22 / 7 / 2008

Supersedes : 0 / 0 / 0

TRIFLUREX 48 EC

H-0047 (40063)

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

Trade name : TRIFLUREX 48 EC
Chemical description : Trifluralin (ISO): a,a,a-trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine.
Use : Herbicide.
Company identification : Agan Chemical Manufacturers Ltd.
P.O.B. 262
ASHDOD Israel
Emergency phone nr : +972-8-8515211
Email : MSDS@ma-industries.com

2. COMPOSITION / INFORMATION ON INGREDIENTS

Substance name	Value(s)	CAS No	EC No	Index No	Classification
Trifluralin (ISO)	44 - 48 %	1582-09-8	216-428-8	609-046-00-1	Xi; R36 R43 N; R50-53
Xylene	45 - 50 %	1330-20-7	215-535-7	601-022-00-9	R10 Xn; R20/21 Xi; R38
Calcium dodecylbenzene sulphonate	3 - 4 %	26264-06-2	247-557-8	-----	Xi; R38-41

3. HAZARDS IDENTIFICATION

Physical/Chemical Hazards : Flammable.
Environmental hazard : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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 : Fluoride 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

Agan Chemical Manufacturers Ltd.

P.O.B. 262 ASHDOD Israel



MATERIAL SAFETY DATA SHEET

Page : 2

Revised edition no : 1

Date : 22 / 7 / 2008

Supersedes : 0 / 0 / 0

TRIFLUREX 48 EC

H-0047 (40063)

6. ACCIDENTAL RELEASE MEASURES (continued)

container. Dispose of this material and its container at hazardous or special waste collection point.
Keep away from combustible material.

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 .

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 : **Trifluralin (ISO): No data available.**
: **Xylene: 100 ppm**
OEL (UK)-STEL [ppm] : **Xylene: 100**
MAK - Germany [ppm] : **Xylene: 100**

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : Liquid
Colour : Orange
Odour : Aromatic (solvent).
pH value : 5-6
Density [g/l] : 1.05± 0.015 @ 20°C
Vapour pressure [mPa] : 13.7 @ 25°C (Trifluralin (ISO)).
Solubility in water : Miscible
Flash point [°C] : 29 (closed cup).
Auto-ignition temperature [°C] : 450 (Xylene).
Boiling point [°C] : 137-143 (Xylene).
Log P octanol / water : 5.14 (Tifluralin (ISO)).
Flammability : Flammable
Explosion properties : Xylene: May form explosive mixtures with air.
Oxidation properties : Not oxidizing



MATERIAL SAFETY DATA SHEET

Page : 3

Revised edition no : 1

Date : 22 / 7 / 2008

Supersedes : 0 / 0 / 0

TRIFLUREX 48 EC

H-0047 (40063)

10. STABILITY AND REACTIVITY

Stability	: Not subject to polymerization.
Hazardous decomposition products	: Fluoride compounds , nitrogen oxides (NO, NO ₂ ...) , carbon oxides (CO, CO ₂) .
Hazardous reactions	: Flashback may occur along vapour trail.
Materials to avoid	: oxidizing agents , acids , alkali .

11. TOXICOLOGICAL INFORMATION

On product	
Rat oral LD50 [mg/kg]	: >2,000
Rat dermal 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
Carcinogenicity	: Trifluralin: EPA Group C: Possible human carcinogen. EU : not classified. IARC classification: group 3 .
Mutagenicity	: Trifluralin: Not mutagenic.
Reproductive toxicity	: (Trifluralin): Not considered to be toxic for the reproductive system.
Teratogenicity	: Trifluralin: Not teratogenic in animal experiments

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/Bee]	: Not toxic to bees
Persistence and degradability	: Trifluralin: Soil : : Moderately persistent in soil. Half-life time (t _{1/2}) ~ 45 days. Water : The product is not biodegradable . Half-life time (t _{1/2}) 4.9-5.8 days. Low risk of underground water contamination.
Bioaccumulative potential	: Trifluralin: Low bioaccumulation potential

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.	: 1993
- Proper shipping name	: UN1993 FLAMMABLE LIQUID, N.O.S.(XYLENE), 3, III
- Packing group	: III
- Class	: 3
- H.I. nr :	: 30
- IMDG-Marine pollution	: NO



MATERIAL SAFETY DATA SHEET

Page : 4

Revised edition no : 1

Date : 22 / 7 / 2008

Supersedes : 0 / 0 / 0

TRIFLUREX 48 EC

H-0047 (40063)

15. REGULATORY INFORMATION

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

Symbol(s)



R Phrase(s)

: N: Dangerous for the environment.
: R10- Flammable.
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.

16. OTHER INFORMATION

Text of R-phrases in heading 2

: R10 - Flammable.
R20/21 - Harmful by inhalation and in contact with skin.
R36 - Irritating to eyes.
R38 - Irritating to skin.
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.

Print date

: 22 / 7 / 2008

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