Conforms to 93/112/EC and ISO 11014-1

SAFETY DATA SHEET
TRIFLUREX 48 EC

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

Product name : TRIFLUREX 48 EC
Chemical name of active ingredient(s) : α,α,α-trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine
Manufacturer : Agan Chemical Manufacturers Ltd.
Northern Industrial Zone,
P.O.Box 262, Ashdod, Israel
Emergency telephone number : +972-8-8515211

2. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/preparation : Preparation

Information on hazardous ingredients *

Common name	CAS No.	%	EC Number	Symbol	R-Phrases
Trifluralin (ISO)	1582-09-8	44 - 48	216-428-8	Xi	R36-43
Xylene	1330-20-7	45 - 50	215-535-7	Xn	R10-20/21-38

**** Occupational Exposure Limit(s), if available, are listed in section 8***

3. HAZARDS IDENTIFICATION

Most important hazards : Flammable. Harmful by inhalation and in contact with skin. Irritating to skin. Toxic to aquatic organisms.

4. FIRST-AID MEASURES

Effects and symptoms
Inhalation : Vapours - headache, dizziness, collapse.
Ingestion : nausea, headache, cramps, vomiting.
Skin contact : Irritating to skin.
Eye contact : May be irritating to eyes.

First-aid measures : Remove victim from area of exposure. Wash off remaining material with plenty of water.
Inhalation : Remove victim to fresh air. If breathing is difficult: artificial respiration. Get medical attention.
Ingestion : Wash out mouth with plenty of water. Get medical attention. Never give anything by mouth to an unconscious person.
Skin contact : Remove contaminated clothing.Wash away remainder with water and soap.
Eye contact : Wash out with plenty of water with the eyelid held wide open for at least 15 minutes. Get medical attention.
Notes to a physician : There is no specific antidote. Treat symptomatically and give supportive therapy.
Protection of first-aiders : Use appropriate protection (see section 8).

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable	: Dry chemical, water spray, foam, carbon dioxide.
Unusual fire/explosion hazards	: Flashback may occur along vapour trail.
Hazardous thermal (de)composition products	: Fluoride compounds and nitrogen oxides.
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.
Environmental precautions	: Do not discharge into drains or the environment.
Methods for cleaning up	: Keep away from: open flame, sparks and heat. Absorb remainder in sand or other inert material. Dispose of in an authorized waste collecting point.

7. HANDLING AND STORAGE

Handling	: Avoid contact with skin and eyes. Ventilation required. Keep away from: sparks, open flame and direct sunlight.
Storage	: Keep only in the original container. Keep in a cool, dry, well ventilated place away from direct sunlight.

Packaging materials

Suitable	: Multi-layer high density polyethylene extrusion blow containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures	: Ventilation required.
Hygiene measures	: When handling do not eat, drink or smoke. Wash hands thoroughly after handling. Wash clothing separately before re-use.

Occupational Exposure Limits

Common name	: **Trifluralin (ISO)**
	: Not established
Common name	: **Xylene**
TLV (USA)	: 100 ppm
"MAK" (Germany)	: 100 ppm
OEL (United Kingdom)	: 100 ppm

Personal protective equipment

Respiratory system	: Respiratory protection is not required if good ventilation is maintained.
Skin and body	: Wear suitable protective clothing. Chemical resistant boots.
Hands	: Chemical resistant gloves.
Eyes	: Safety goggles or face shield.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Liquid
Colour	: Orange
Odour	: Aromatic (solvent)
Boiling point	: 137-143°C (Xylene)
Density	: 1.05 ± 0.015 g/L @ 20°C
Vapour pressure	: 13.7 mPa @ 25°C (Trifluralin (ISO))
Solubility in water	: 0.2 ppm @ 25°C(Trifluralin (ISO))
Octanol/water partition coefficient	: log = 5.14 (Trifluralin (ISO))
pH	: 5-6 CIPAC, MT 75
Flash point	: 29°C (closed cup)
Flammability	: Flammable
Autoignition temperature	: 450°C (Xylene)
Explosion properties	: Xylene (vapours) - May form explosive mixture with air.
Lower explosion limit	: 1 volume %
Upper explosion limit	: 7 volume %
Oxidation properties	: Not oxidizing.

10. STABILITY AND REACTIVITY

Stability	: Not subject to polymerization.
Materials to avoid	: Oxidizing agents, acids and alkali.
Hazardous reactions	: None
Hazardous decomposition products	: Fluoride compounds and nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

Preparation

Acute toxicity - Oral	: LD_{50} (rat) = 2,595 mg/kg
Acute toxicity - Dermal	: LD_{50} (rabbit) > 2,000 mg/kg
Acute toxicity - Inhalation	: LC_{50} (rat) > 5.10 mg/L (4 hours).
Skin irritation	: Not irritating (rabbit).
Eye irritation	: Slightly irritating (rabbit).
Sensitization	: The product is not a skinsensitizer (guinea-pig).
Common name	: **Trifluralin (ISO)**
Chronic toxicity	: NOEL (rat) = 2.5 mg/kg/day (2 years). NOEL (mice) = 73 mg/kg/day (2 years).
Carcinogenicity	: EPA : Group C EU : Not classified IARC : Group 3
Mutagenicity	: Not mutagenic
Reproduction toxicity	: NOEL (rat) = 50 ppm (2 generation).
Other information	: Teratogenicity - NOAEL (rabbit): 20 mg/kg/day (Maternal) ; 50 mg/kg/day (Fetal).

12. ECOLOGICAL INFORMATION

Preparation

Ecotoxicity : **Fish**
LC_{50} (96 hours) rainbow trout = 0.24 mg/L
golden orfe = 0.17 mg/L
Daphnia magna
EC_{50} (48 hours) = 2.6 mg/L
Algae (selenastrum capricornutun)
EC_{50} (72 hours) = 0.14 mg/L
Birds
Mallard duck LD_{50} > 2,000 mg/kg
Japanese quail LD_{50} > 2,000 mg/kg

Very toxic to aquatic organisms. Low toxicity: birds.

Common name : **Trifluralin (ISO)**

Mobility : **Soil**
Low mobility.
Adsorbed on soils with high organic content.

Persistence/degradability : **Soil**
Moderately persistent.
Half-life time (t½): ~ 45 days.
Degradation is primarily via: microorganisms.

Ecotoxicity : **Fish**
LC_{50} (96 hours) rainbow trout = 0.01-0.04 mg/L
bluegill sunfish = 0.06 mg/L
Daphnia magna
EC_{50} (48 hours) = 0.56 mg/L
Algae (selenastrum capricornutun)
EC_{50} (72 hours) = 0.27 mg/L
Birds
Mallard duck LC_{50} (8 day feeding) > 6,000 ppm
Bobwhite quail LD_{50} > 2,000 mg/kg
LC_{50} (5 day feeding) > 5,000 ppm
Bees
LD_{50} (oral) = 11 µg/bee

Toxic to aquatic organisms Low toxicity: birds and bees.

13. DISPOSAL CONSIDERATIONS

Methods of disposal : Dispose of in a pesticide approved landfill, or in a chemical incinerator equipped with scrubbers, In accordance with national and regional regulations.

14. TRANSPORT INFORMATION

International transport regulations

UN number : 1307

Land - Road/Railway

- **Proper shipping name** : XYLENES
- **ADR/RID Class** : 3, Label 3
- **ADR/RID Item number** : 31c
- **Packing group** : III
- **Hazard Identification Number** : 30

Inland waterways

- **Proper shipping name** : XYLENES
- **ADNR Class** : 3, 31c, Label 3

Sea

- **Proper shipping name** : XYLENES
- **IMDG Class** : 3.3, Label 3
- **IMDG Page number** : 3394
- **Packing group** : III
- **Medical First Aid Guide (MFAG)** : 310
- **Emergency Schedules (EmS)** : 3-07

Air

- **Proper shipping name** : XYLENES
- **UN/ID Number** : 1307
- **IATA-DGR Class** : 3

National transport regulations
No additional national transport regulations are known to the supplier

15. REGULATORY INFORMATION

Classification : This product is provisionally labelled by the supplier in accordance with the suppliers understanding of the EU regulations.

Hazard symbol(s) : Xi

IRRITANT

Risk phrases : R10: Flammable.

Safety phrases : S02: Keep out of the reach of children.
S13: Keep away from food, drink and animal feedingstuffs.
S20/21: When using do not eat, drink or smoke.
S24/25: Avoid contact with skin and eyes.
S37/39: Wear suitable gloves and eye/face protection.
S61: Avoid release to the environment. Refer to special instructions/Safety data sheets.

16. OTHER INFORMATION

The information contained in the Safety Data sheet is correct to the best of our knowledge at the date of issue. It is intended as a guide for the safe use, handling, disposal, storage and transportation and is not intended as a warranty or as a specification. The information relates only to the product specified and may not be suitable for combinations with other materials or in processes other than those specifically described herein.

HISTORY

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