

FARM-AG INTERNATIONAL (Pty) Ltd

P.O. Box 1523, Durban 4000

Head Office : 61 Marshall Dr., Old Mill Industrial Park, Mount Edgecombe South Africa

Registration Number: 2005/011761/07

Tel + 27 31 003 3486 • Fax + 27 31 502 5825

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: Blizzard 480 EC
Common Name: Trifluralin 480 g/l
Creation Date: June 2000
Revision Date: March 2021

24 Hr Emergency Number: 082 771 2712

In case of poisoning:

Poison Information Centre: 082 446 8946
Tygerberg Hospital: (021) 931 6129
Poison Emergency Enquiries (021) 689 5227

In case of Spillage:

HAZMAT: 0800 147 112

SECTION 2 : COMPOSITION / INFORMATION ON INGREDIENTS

Active ingredient : Trifluralin 480 g/l
Chemical Name : -trifluoro-2, 6-dinitro-N, N-dipropyl-ptoluidine (IUPAC).
CAS No. : 1582-09-8
Chemical Family : 2,6-dinitroaniline
Chemical Formula : C₁₃H₁₆F₃N₃O₄ (Mol. wt. 335.3)
NIOSH /RTECS no : XU9275000
UN No. : 1993
Risk Phrase (s) : R 10, R 36, R43 ; R50/53

SECTION 3: HAZARD IDENTIFICATION

Toxicity class: WHO Table 5, EPA 111, IV. A low toxicity herbicide.
Main hazards: Flammable.
Flammability: Gives off irritating or toxic fumes (gasses) in a fire.
Biological Hazards: Skin contact, ingestion and inhalation.
Eye contact: May cause eye irritation.
Skin contact: Slightly irritating.
Ingestion: Minimally toxic.
Inhalation: Minimally toxic by inhalation.
Reproductive hazard: See section 11.
Carcinogenicity: See section 11.
Mutagenicity: See section 11.
Neurotoxicity: See section 11

SECTION 4: FIRST AID MEASURES AND PRECAUTIONS

This herbicide does not uncouple oxidative phosphorylation or generate methemoglobin.

Skin Contact: Remove all signs of skin contamination by washing with non-abrasive soap and water. If irritation persists, obtain medical attention immediately.

Eye Contact: Treat immediately by flushing with a stream of clean water, holding the eyelid(s) open for at least 15-20 minutes. If irritation persists, obtain medical advice immediately.

Ingestion: Do not induce vomiting. Call a physician or the Poison Control Centre. If available, administer activated charcoal (6-8 heaping teaspoonful) with a large quantity of water. Do not give anything by mouth to an unconscious person.

Advice to physician: There are no specific antidotes for poisoning of this herbicide. In the case of suicidal ingestions, particularly, the possibility must always be kept in mind that multiple toxic substances may have been swallowed. Do not induce vomiting due to the aromatic solvent. Administer activated charcoal.

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SECTION 5: FIRE-FIGHTING MEASURES

Fire and explosion hazards:	Highly flammable.
Extinguishing agents:	Extinguish small fires with carbon dioxide, dry powder, or alcohol-resistant foam. Water spray can be used for larger fires or cooling of unaffected stock, but avoid the accumulation of polluted run-off from the site.
Fire fighting:	Remove container from fire area if possible. Contain fire control water for later disposal. Use a recommended extinguishing agent for the type of surrounding fire. Keep material out of sewers and water sources. Avoid inhalation of hazardous vapours. Keep upwind.
Personal protective equipment:	Fire may produce irritating or poisonous vapours (toxic oxides of carbon, nitrogen and phosphorus), mists or other products of combustion. Fire-fighters and others that may be exposed should wear full protective clothing and use positive-pressure, self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES (SPILLAGE)

Personal precautions:	Avoid contact with skin and eyes. Do not inhale fumes. For personal protection see Section 8.
Environmental precautions:	Do not allow to enter drains or watercourses. When the product contaminates public waters, inform appropriate authorities in accordance with local regulations.
Occupational spills:	For small liquid spills, soak up with sand or other suitable non-combustible absorbent material such as sawdust, and place into containers for subsequent disposal. For large spill, contain liquid far ahead of spill. Contain spillage and contaminated water for subsequent disposal. Do not flush spilled material into drains. Keep spectators away. Follow all local, state and Federal requirements for disposal.

SECTION 7: HANDLING AND STORAGE REQUIREMENTS

Handling: Harmful by inhalation or if swallowed, Avoid contact with eyes, prolonged contact with skin, and inhalation of spray fumes. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking or using the toilet. Remove clothing immediately if the herbicide gets inside. Then wash skin thoroughly using a non-abrasive soap and put on clean clothing. Do not apply directly to areas where surface water is present, or to intertidal areas below the mean high water mark. Water used to clean equipment must be disposed of correctly to avoid contamination.

Storage: Store in its original labelled container in shaded, well-ventilated area, away from heat, sparks and other sources of ignition. Not to be stored next to foodstuffs and water supplies. Keep out of reach of children and animals. Local regulations should be complied with.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Occupational exposure limits: TLV not established.

Engineering control measures: It is essential to provide adequate ventilation. The measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire and other applicable regulations. If engineering controls and work practices are not effective in controlling exposure to this material, then wear suitable personal protective equipment including approved respiratory protection.

PERSONAL PROTECTIVE EQUIPMENT:

Respirator: An approved respirator suitable for protection from dusts and mists of pesticides is adequate. Limitations of respirator use specified by approving agency and the manufacturer must be observed.

Clothing: Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance.

Gloves: Employee must wear appropriate synthetic protective gloves to prevent contact with this substance.

Eye protection: The use of safety goggles is recommended. Emergency eyewash: Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	A clear red wine coloured liquid
Odour:	Aromatic solvent odour.
Explosive properties:	Not explosive.

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Flammability:	Flammable (due to solvent).
Flash point:	23°C
Corrosive properties:	Not corrosive.
pH:	3,5 – 7,0 (5% aqueous solution)
Relative Density:	1.040 ± 0.01
Solubility in water:	The product emulsifies in water.
Partition-coefficient in –octanol/water:	$K_{ow} \log P = 4.83$ (20°C)

SECTION 10: STABILITY AND REACTIVITY

Storage stability:	Stable for up to 2 years under normal warehouse conditions.
Incompatibility:	Spray solutions containing this product should be mixed, stored or applied using stainless steel, aluminium, fibreglass or plastic-lined containers. The product is relatively stable in neutral, weakly acidic and weakly alkaline media, but rapidly hydrolysed in strong acids and alkalis. The product is compatible with most other pesticides and fertilisers when used at normal rates. The product can be combined with both dry and liquid fertilisers. However, a compatibility test is required before using with other products. Do not physically mix concentrate directly with other herbicides or pesticide concentrates, always dilute first.
Thermal decomposition:	Formation of corrosive fumes of hydrogen fluoride and toxic oxides of nitrogen on heating.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute oral LD50:	> 5 000 mg/kg in rats.
Acute dermal LD50:	> 5 000 mg/kg in rats.
Acute inhalation LC50:	> 5 mg/l (4h) in rats.
Acute skin irritation:	Slightly irritating to skin (rabbits).
Acute eye irritation:	The product may cause eye irritation due to its dermal irritation (rabbits).
Dermal sensitisation:	Mild sensitisation potential.
Carcinogenicity:	Possible human carcinogen. Classification is based on the induction of urinary tract tumours and thyroid tumours in rats in one study. Trifluralin is structurally similar to ethalfuralin, a carcinogen in rats.
Teratogenicity:	Animal studies did not detect any teratogenic effects. No human information available.
Mutagenicity:	Animal studies did not detect any mutagenic effects. No human information available.

SECTION 12: ECOLOGICAL INFORMATION**ECOTOXICOLOGY:**

Birds:	Not toxic to birds. LD50: Bobwhite quail: > 2000 mg/kg
Fish:	Toxic to fish. LC50 (96 hr): 0.088 mg/l (young rainbow trout) LC50 (96 hr): 0.089 mg/l (young bluegill sunfish)
Daphnia:	Toxic to Daphnia magna: EC50 (48 h): 0.245 mg/l
Algae:	Low toxicity to Scenedesmus subspicatus. EbC50 (72 h): 1.98 mg/l. ErC50 (72 h): 9.14 mg/l.
Bees:	Low toxicity.
Earthworms:	Low toxicity.
Degradability:	Strongly adsorbed to soil and therefore becomes practically immobile. Microbial degradation is the major cause of loss from soil, with liberation of carbon dioxide. The principle metabolite is aminomethylphosphonic acid. In soil the half-life of the product is less than 60 days.
Mobility:	The product is practically immobile and is unlikely to leach.
Accumulation:	The product shows little or no tendency to bioaccumulate and poses no long-term threat to wildlife.

SECTION 13: DISPOSAL CONSIDERATION

Pesticide disposal: Waste resulting from the use of this product that cannot be reused or reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable local procedures. Hydrolysis under alkaline conditions is a suitable method

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to dispose of small quantities of the product. After hydrolysis, dilute and dispose of in pits or landfill. Comply with any local legislation applying to waste disposal.

Package product waste: Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is destroyed. Combustible containers should be disposed of in pesticide incinerators. Non-combustible containers must first be triplerinsed with water. Containers should be punctured and recycled or disposed of.

14. TRANSPORT INFORMATION

UN NUMBER: 1993

ADR/IRD:

Shipping name Flammable liquid, n.o.s(Trifluralin)
 Class: 3
 Classification code: F1
 Packaging group: III
 Label: 3
 Hazard ID no. 30

IMDG/IMO

Packaging group: III
 Class: 3
 Labels: 3 Marine pollutant
 Shipping name: Flammable liquid, n.o.s(Trifluralin)

AIR/IATA

Shipping name: Flammable liquid, n.o.s(Trifluralin)
 Class 3
 Hazard Label Flammable liquid
 Packaging Group III
 Passenger Aircraft Y309 (max 10 L)
 309 (max 60 L)
 Cargo Aircraft 310 (max 220L)

Tremcard number 30GF1-III

15. REGULATORY INFORMATION

Symbol: Xi; N
Indication of danger: Irritant; Dangerous for the environment.
Risk phrase (s):
R10 Flammable
R 36 Irritating to eyes.
R 43 May cause skin sensitisation by skin contact.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases

S2 Keep out of reach of children.
S24 Avoid contact with skin.
S 37/39 Wear suitable gloves.
S60 This material and its container must be disposed of as hazardous waste.
S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.
National legislation: In accordance with 91/155/EEC Directive and with French standard T 01- 102 and the South African Occupational Health and Safety Act, 1993 (Act. No. 85 of 1993).

16. OTHER INFORMATION

References:

- The Pesticide Manual; Thirteenth Edition; Editor Clive Tomlin; Crop Protection Publications, 2003.

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- Dangerous Goods Regulations; IATA International Air Transport Association, 47th Edition, Effective 1 January 2006.
- IMDG Code, Vol. 2, 2005 Edition.
- ECB-ESIS(European chemical Substances Identification System)

Use: Herbicide.

Blizzard 480 EC is the property of FARMAG INTERNATIONAL (PTY) LTD

Read the label before use or buy. Use pesticides safely. All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors or omissions or the consequence thereof.