

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 & COMPANY IDENTIFICATION

Product Name: VULTURE 480 EC
Product Use: Herbicide
Creation Date: June 2014
Revision Date: August 2017

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

Common Name: Triclopyr
Chemical Name: 3,5,6-trichloro-2-pyridinyl) oxy) acetic acid, butoxy ethyl ester
Chemical family: Pyridinecarboxylic acid
Formulation: Triclopyr 480 g/l
 Emulsifiable Concentrate
Use: Control of woody plants and many broad-leaved weeds in grassland, uncultivated land and industrial areas

Hazardous ingredients of toxicological concern:

<u>Inert:</u>	<u>Concern</u>	<u>% present:</u>
Triclopyr	irritating	> 48 %
Solvent	Irritating	± 42 %
Emulsifier	Irritating	±10 %

Symbol: Xn, Xi
Indication of Danger: Harmful, Environmentally Hazardous Substance
RISK-PHRASE(S) R22, R36, R37, R43, R50/53

SECTION 3 - HAZARD IDENTIFICATION**Risk Phrases :** Irritating to skin. Harmful : may cause lung damage if swallowed.**Environmental hazard :** Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.**Primary route of exposure :** Skin and eyes contact. Vapours inhalation.**Symptoms relating to use:**

- **Skin contact :** Irritating to skin. Itch. Redness, pain.
- **Eye contact :** Not expected to present a significant eye contact hazard under anticipated conditions of normal use.
- **Ingestion :** Abdominal pain, nausea. Breathing difficulties. Harmful : may cause lung damage if swallowed. Keep away from food, drink and animal feeding stuff.

SECTION 4 - FIRST AID MEASURES AND PRECAUTIONS

Inhalation: Remove to fresh air if effects occur. Consult a physician.
Skin contact: Wash off in flowing water or shower
Eye contact: Flush eyes with plenty of water.
Ingestion: Do not induce vomiting. Call a physician and/or transport to emergency facility immediately. The decision of whether to induce vomiting or not should be made by an attending physician.

NOTE TO PHYSICIAN:

If lavage is performed, endotracheal and/or oesophageal control is suggested. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

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SECTION 5 - FIRE-FIGHTING MEASURES

Flash point: 72 °C. Non-flammable. Combustible**Fire & Explosion Hazards:** Combustible. Toxic, irritating vapors may be produced if product is involved in fire.**Hazardous Combustion Products;** Nitrogen oxides. Hydrogen chloride. Phosgene. Dependent on the intensity of the fire.**Extinguishing Media:** Water fog, foam, CO₂, and dry chemical.**Fire Fighting Protective Equipment:** Use positive pressure self-contained breathing apparatus and full protective clothing.

SECTION 6 - ACCIDENTAL RELEASE MEASURES (SPILLAGE)

Environmental Precautions

Do not wash into sewers or into any body of water. Advise water authority if spillage has entered water course or drainage system.

Methods of cleaning up

Soak up with sand or other non-combustible absorbent material and place into containers for disposal. For large spills, barricade area and consult manufacturer. If further assistance is required, telephone the emergency contact number.

SECTION 7 - HANDLING AND STORAGE REQUIREMENTS

HANDLING:

Keep out of reach of children. Do not use near heat or open flame. Harmful if swallowed, inhaled, or absorbed through skin. Avoid contact with eyes, skin and clothing. Avoid breathing mists and vapors. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. For handling relative to end-use of this product, read the product label for further information concerning the use of personal protective equipment (PPE) under the Worker Protection Standard of 1993.8.

STORAGE:

Product should be stored in compliance with local regulations. Store in a cool, dry, well-ventilated place in the original container. Protect from excessive heat and cold. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilisers. Keep out of reach of children.

SECTION 8 - EXPOSURE CONTROL/PERSONAL PROTECTION

Comply with occupational safety, environmental, fire, and other applicable regulations.

Exposure Guidelines:

3,5,6-Trichloro-2- pyridinyloxyacetic acid, Butoxyethylester:

Guideline is 2 mg/m³ as acid equivalent, Skin.

Kerosene:

Guideline is 10 mg/m³.

Engineering Controls:

Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

PERSONAL PROTECTIVE EQUIPMENT:

Respiratory Protection: Atmospheric levels should be maintained below the exposure guidelines. When respiratory protection is required for certain operations, use a NIOSH approved air-purifying respirator.

Skin Protection:

For handling prior to end-use of this product, no precautions other than clean, body-covering clothing should be needed for brief contact. Use gloves impervious to this material when prolonged or frequently repeated contact could occur. For handling relative to end-use of this product, the Worker Protection Standard of 1993 requires that applicators and other handlers must wear long-sleeved shirt and long pants; chemical-resistant gloves such as Barrier Laminate, Nitrile Rubber, Neoprene Rubber, or Viton; and shoes and socks. Remove clothing immediately if herbicide gets inside. Then wash thoroughly and put on clean clothing. Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Eye Protection:

Use safety glasses.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Liquid

Colour:

Yellow to amber ochre

Density:

1.05 to 1.07 g/l

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Flash point: 44°C
 Solubility in water: Emulsifies in water:

SECTION 10 - STABILITY AND REACTIVITY

Conditions to Avoid: Combustible. Avoid sources of ignition if temperature is near or above flash point.
Incompatibility: (Specific Materials To Avoid) Acid, base, and oxidizing material.
Hazardous Decomposition Products: Nitrogen oxides, hydrogen chloride, and Phosgene May Result Under Fire Conditions.
Hazardous Polymerization: Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute oral LD₅₀, rats: 500 mg/kg
Acute dermal LD₅₀, rats: > 2000 mg/kg
Inhalation LC₅₀, 4hours, rats: > 5.19 mg/ℓ air
Acute skin irritation: Mild irritant. Non-sensitizer.
Acute eye irritation: Mild irritant.

Reproductivity:
 Triclopyr does not appear to cause reproductive toxicity.

Teratogenicity:
 Data suggest that triclopyr is not teratogenic.

Mutagenicity:
 Triclopyr is non-mutagenic in bacterial and cytogenetic assay systems. A mutagenicity study using rats was weakly positive, but a negative result was found in mice, the more sensitive species. Based on these data, triclopyr is unlikely to be mutagenic.

Carcinogenicity:
 Rats and mice fed oral doses of triclopyr at 3 to 30 mg/kg/day for 2 years showed no carcinogenic response. Even though the mice did have a high incidence of lymph cancer, this incidence were apparently characteristic of the particular strain of mice and did not represent a dose-related effect. Based on these data, triclopyr is unlikely to be carcinogenic.

Organ toxicity: Organs affected by exposure to triclopyr include the kidneys and liver.

ADI: 0.005 mg/kg b.w

SECTION 12 - ECOLOGICAL INFORMATION**Degradation & Persistence:**

In natural soil and in aquatic environments, the ester and amine salt formulations rapidly convert to the acid, which in turn is neutralized to a relatively nontoxic salt. It is effectively degraded by soil microorganisms and has a moderate persistence in soil environments. The half-life in soil ranges from 30 to 90 days, depending on soil type and environmental conditions, with an average of about 46 days. The half-life of one of the breakdown products (trichloropyridinol) in 15 soils ranged from 8 to 279 days, with 12 of the tested soils having half-lives of less than 90 days. Longer half-lives may occur in cold or arid conditions. Triclopyr is not strongly adsorbed to soil particles and has the potential to be mobile.

Triclopyr is not readily hydrolyzed in water at pH 5 to 9. Hydrolysis of the ester and the amine salt occurs rapidly and results in formation of triclopyr. Reported half-lives in water are 2.8 to 14.1 hours, depending on season and depth of water. The ester formulation half-life is from 12.5 to 83.4 hours. In water, the most important breakdown process is photolysis.

Triclopyr is readily translocated throughout a plant after being taken up by either roots or the foliage. The estimated half-life in aboveground drying foliage as in a forest overstory is 2 to 3 months.

ECOTOXICOLOGY:

Assessment largely or completely based on data for active ingredient.

Birds: Practically nontoxic

LD₅₀: Mallard duck: 1698 mg/kg
 LC₅₀ (8day diet): Bobwhite quail: 2935 mg/kg
 Japanese quail: 3278 mg/kg

Fish: Ester formulations are very toxic to fish and Daphnia.

LC₅₀ (96 hours) Rainbow trout: 0.74 mg/ℓ
 Bluegill sunfish: 0.87 mg/ℓ

Daphnia: EC₅₀ (48 hours), ester: 0.4 mg/ℓ

BCF: in whole bluegill sunfish: 1.08

Algae: Growth inhibition EC₅₀ for green alga (*Selenastrum capricornutum*) is 45 mg/L based on cell count, 16.8 mg/L based on cell vol.

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Bees: Non-toxic to bees. LD₅₀ (contact): > 100 µg/bee**SECTION 13 - DISPOSAL CONSIDERATION****Pesticide disposal:**

Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or reprocessed. Never pour untreated waste or surplus products into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers.

Comply with local legislation applying to waste disposal.

Container disposal:

Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is destroyed.

TRIPLE RINSE empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow to drain for at least 30 seconds after the flow has slowed down to a drip. Thereafter rinse the container three times with a volume of water equal to a minimum of 10 % of that of the container. Add the rinsings to the contents of the spray tank before destroying the container in the prescribed manner.

Do not re-use the empty container for any other purpose but destroy it by perforation and flattening and bury in an approved dump site. Prevent contamination of food, feedstuffs, drinking water and eating utensils.

Comply with local legislation applying to waste disposal.

SECTION 14 - TRANSPORT INFORMATION**UN NUMBER:** 3082**Road Transport ADR/ RID:**

Class: 9

Packaging group: III

Shipping name: Environmentally hazardous substance, liquid, N.O.S. (triclopyr butoxyl ethyl ester 480 g/l)

Maritime Transport IMDG / IMO:

Class: 9

Packaging group: III

Shipping name: Environmentally hazardous substance, liquid, N.O.S. (triclopyr butoxyl ethyl ester 480 g/l)

Considered a marine pollutant.**SECTION 15 - REGULATORY INFORMATION****Hazard Symbol:** Xn, Xi**Indication of Danger:** Harmful, Dangerous for the Environment**Risk Phrases:****R22** Harmful if swallowed**R38** Irritating to skin**R43** May cause sensitisation by skin contact**R 50/53** Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.**R65** Harmful: may cause lung damage if swallowed**Safety Phrases :****S24** Avoid contact with skin**S35** This material and its container must be disposed of in a safe way**S37** Wear suitable gloves**S57** Use appropriate containment to avoid environmental contamination**S62** If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.**SECTION 16 - OTHER INFORMATION****Disclaimer:**

The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage use of the product. It is not applicable to unusual or non-standard uses of the product nor where instructions or recommendations are not followed.

All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.

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