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

1. COMPOSITION / INFORMATION ON INGREDIENTS

Product Name: FARMAG AMETRYN 500 SC

Product Use: Herbicide

Effective Date: -

Revision Date: May 2019

In case of Poisoning:

Griffon Poison Information Centre: 082 446 8946
Tygerberg Poison Information Center: (021) 931 6129
Red Cross Poison Emergency Enquiries: (021) 689 5227

2. COMPOSITION / INFORMATION ON INGREDIENTS

Common Name: Ametryn

Chemical Name: N²-ethyl-N⁴-isopropyl-6-methylthio-1,3,5-triazine-2,4-diamine (IUPAC)

Formulation: Ametryn (triazine) $500g/\ell$

Suspension concentrate

Use: A suspension concentrate herbicide for pre- and post-emergence control of annual broadleaf weeds and grasses,

as listed, in sugarcane, bananas and pineapples.

SYMBOLS: Xn

RISK-PHRASE(S): R22, R50/53

3. HAZARD IDENTIFICATION

Hazardous components: Ametryn 500 g/l

The acute toxicity to Ametryn for man is thought to be low, and no adverse health effects from exposure to this herbicide have been reported.

Adverse Health Effects:

Ingestion: Moderately toxic, no significant effects are expected to develop if only small amounts are swallowed.

Mildly irritating to the upper respiratory tract.

Mildly irritating to the eyes and skin. May cause pain, redness or tears to the eyes.

4. FIRST AID MEASURES AND PRECAUTIONS

No signs and symptoms of triazine poisoning are known or expected in humans. An antidote is neither known nor needed. Treat symptomatically when required. When large amounts have been ingested, gastric lavage or the administration of activated charcoal with water may be indicated.

Inhalation: Remove source of contamination or move victim to fresh air. If breathing has stopped, perform artificial

respiration. Keep person warm at rest. Obtain medical advice immediately.

Skin Contact: Remove contaminated clothing, shoes and leather goods immediately. Gently wipe off excess chemical. Wash

skin gently and thoroughly with water and non-abrasive soap. Seek medical advice if necessary.

Eye Contact: Flush eyes with gently flowing cold water or saline solution for 20 minutes, holding the eyelid(s) open. If

irritation persists, obtain medical attention.

Ingestion: Have victim rinse mouth thoroughly with water. Do not induce vomiting. Maintain blood pressure and airway.

Give oxygen if respiration is depressed. In serious cases, seek medical advice immediately.

Advice to physician: No signs and symptoms of triazine poisoning are known or expected in humans. An antidote is neither known

nor needed. Treat symptomatically when required. When large amounts have been ingested, gastric lavage or the administration of activated charcoal with water may be indicated. In cases of very heavy ingestion, some

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formulants may lead to complications, eg. Gastric irritation from dispersing/ wetting agents in powders, or dire emergency from alkylglycols in liquid products. Data on constituents should be obtained from the manufacturers, and treatment carried out accordingly.

5. FIRE-FIGHTING MEASURES

Extinguishing media:

Extinguish small fires with carbon dioxide, dry powder, water spray, fog or standard foam. Water spray can be used for cooling of unaffected stock, but avoid water coming in contact with the product. Contain water used for fire-fighting for later disposal. Avoid the accumulation of polluted run-off from the site.

Fire/Explosion Hazards:

Fire may produce irritating or poisonous vapours (toxic oxides of nitrogen, sulphur and carbon) mists.

Fire fighting:

Remove spectators from surrounding area. Remove container from fire area if possible. Fight fire from maximum distance. For massive fire, use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal. Use a recommended extinguishing agent for the type of surrounding fire. Water can be used to cool unaffected containers but must be contained for later disposal. Avoid inhaling hazardous vapours. Keep upwind.

Fire Fighting Protective Equipment:

Fire-fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)

Personal precautions:

Avoid contact with skin and eyes. Do not breathe in fumes. For personal protection see Section 8

Environmental precautions:

Do not allow to enter drains or water courses. When the product contaminates public waters, inform appropriate authorities immediately in accordance with local regulations.

Method for cleaning up:

Do not touch spilled material; stop leak if you can, do it without risk. Use water spray to reduce vapours. For **small spills:** sweep up with damp earth or sand or other suitable non-combustible absorbent material, such as sawdust, taking care not to raise a dust cloud. Place the material into a clean, dry container and cover for subsequent disposal. In situations where product comes in contact with water, contain contaminated water for later disposal. Do not flush spilled material into drains. Keep spectators away and upwind. **Large spills:** dike far ahead of spill for later disposal. Land spills: dig a pit, pond, lagoon or holding area to contain the liquid. Keep unnecessary people away.

7. HANDLING AND STORAGE REQUIREMENTS

Handling

Harmful by inhalation. Avoid contact with eyes and skin and inhalation of fumes. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking or using the toilet. Operators should change and wash clothing daily. Remove clothing immediately if the product gets inside. Then was 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 container in isolated, dry, and well-ventilated area. Avoid cross contamination. Keep under lock and key out of reach of unauthorized persons, children and animals. Store away from incompatible substances. Not to be stored next to foodstuffs and water supplies. Local regulations should be complied with.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Occupation exposure limits: No occupational limits established by OSHA, ACGIH or NIOSH

Engineering measures: It is essential to provide adequate ventilation. Ensure that control systems are properly designed and

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

Personal protective equipment: If engineering controls and work practices are not effective in controlling exposure to this material,

then wear suitable personal equipment including approved respiratory protection.

Respiratory system: An approved full-face respirator suitable for protection from dust and mists is required. Limitations of

respirator use specified by the approving agency and the manufacturer must be observed.

Clothing: Employee must wear appropriate protective (impervious) clothing and equipment to prevent skin

contact with the substance.

Gloves: Employee must wear appropriate chemical resistant protective gloves to prevent contact with this

substance.

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Eye protection: Employee must wear splash-proof safety goggles and face-shield to prevent contact with this

substance.

Emergency eye wash: Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide and eye was fountain or appropriate alternative within

the immediate work area for emergency use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White to off white liquid free of any lumps

Odour: Slight odour Explosive properties: Non explosive

Flash point: No flash point – water base formulation, non flammable

Oxidising properties: Not corrosive

pH: 6-8 (5% solution @ 25°C)

Relative density: 1.088 ± 0.005 g/ml at 20°C (Density meter)

Solubility in water: Dispersible in water
Suspensibility: 90% min (CIPAC MT 15.1)

Viscosity: 1000-2000 cP (Brookfield RV1 Sp. No. 2, Speed 10rpm)

Granulometri: 50% < 3.5 um; 90% <10 um (Malverne Particle Sizer)

Persistent foam: Maximum 30 ml at 1 minute (CIPAC MT 47)

Partition-coefficient

in n-octanol/water: K_{ow} (logp_{ow}) = 2.63 at 25°C (data for 500 SC)

10. STABILITY AND REACTIVITY

Stability: The product is stable at room temperature. Product hydrolysed rapidly in strong alkaline and acid media. The

product slowly decomposes by UV light, but this effect is of negligible value under field conditions. Do not

freeze the product.

Incompatibility: The product is compatible with most other common pesticides but incompatible with strong alkaline and acid

materials. Do not physically mix concentrate directly with other herbicides or pesticide concentrates; always

dilute first.

Hazardous decomposition: Product undergoes decomposition at high temperatures. Avoid heating above ambient temperatures. Oxides of

carbon, phosphorous and sulfur are released when the product decomposes on heating.

11. TOXICOLOGICAL INFORMATION

Acute oral LD₅₀: 1390 mg/kg in rats

Acute dermal LD₅₀: >3100 mg/kg in rats (technical product)

Acute inhalation LC_{50:} (4 h) 2.2 mg/l of air in rats

Acute skin irritation:This product is classified as non-irritant and non-corrosiveAcute eye irritation:This product is classified as mildly irritant to the eyes

Dermal sensitization:No data currently available

Carcinogenecity: Studies did not detect carcinogenic activity. No human information is available.

Teratogenicity/Reproductive hazard: No data currently available

Mutagenicity: Studies indicate that the product did not display mutagenic activity

12. ECOLOGICAL INFORMATION

Degradability: Strongly absorbed to soil. Half-life in soil is between 70 and 250 days, but may be

influenced by climatological conditions.

Mobility: The product is relatively mobile in soils and due to its persistence in soil it may leach as a

result of high rainfall, floods and furrow irrigation. Ametryn can therefore cause

contamination of surface and ground water.

Accumulation: This product shows little or no tendency to bio-accumulate and poses no long term threat

to wildlife. Ametryn is broken down into no-toxic substances by tolerant plants.

German wgk: Not available

ECOTOXICOLOGY:

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Birds:Non toxic to birdsFish:Toxic to fish and shellfishDaphnia:Slightly toxic to Daphnia magna

Bees: Slightly toxic to bees

Earthworms: LC₅₀ (14 days) is 166 mg/kg of soil (*Data on the technical product*)

Soil micro-organisms: No information currently available

13. DISPOSAL CONSIDERATION

Disposal:

Contaminated absorbents, used containers, surplus product, etc., should be burnt in an incinerator preferably designed for disposal. Hydrolysis is under alkaline conditions. (10% w/v sodium hydroxide) is a suitable method to dispose of small quantities of Ametryn. Heating speeds up the process. After hydrolysis, dilute and dispose of via the sewerage system. Ametryn is relatively stable and characterised by high mobility in some soils and should not be buried in dump sites, landfills, etc. Comply with local legislation applying to waste disposal.

Package product waste:

Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is cleaned, reconditioned, or destroyed. Combustible containers should be disposed of in incinerators. Non-combustible containers must first be triple-rinsed with water. Containers that are in good condition may be returned to the manufacturer, or to a drum reconditioner for re-use for the same type of product. Containers that are not to be reused should be punctured and transported to a scrap metal facility for recycling or disposal. Comply with any local legislation applying to disposal.

14. TRANSPORT INFORMATION

UN NUMBER: 3082

ADR/IRD:

Proper shipping name: Environmentally hazardous substance, liquid n.o.s (Ametryn 500 g/l)

Classification code: M5
Class: 9
Packaging group: III
Label: 9
Hazard ID: 90

IMG/IMO:

Proper shipping name: Environmentally hazardous liquid, n.o.s (Ametryn 500 g/l)

Class: 9 Packaging group: III

Label: 9 Marine Pollutant

AIR/IATA:

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Ametryn 500 g/l)

Class: 9 Packaging group: III

15. REGULATORY INFORMATION

Symbol: Xn Indication of danger: Harmful

Risk phrases

R22: Harmful if swallowed

Safety phrases: S 2 Keep out of reach of children

S 36 Wear suitable protective clothing

S 61 Avoid release to the environment. See label.

National legislation: In accordance with 91/I55/EEC Directive and with French standard T 01 – 102 and the South African National

Road Traffic., 1996 (Act 93 of 1996, The Fire Brigade Act, 1987 (Act 99 of 1987), and the occupational Health

and Safety Act, 1993 (Act No. 85 of 1993)

16. OTHER INFORMATION

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17. REFERENCES

- Similar product MSDS
- The Pesticide Manual; Eleventh Edition; Editor Clive Tomlin; Crop Protection Publications, 1997.
- Dangerous Goods Regulations; IATA International Air Transport Association, 41st Edition, Effective 1 January 2000.
- IMDG Code, Vol. 2, 2000 Edition/.
- EXTOXNET, Pesticide Information Profiles, Revised June 1996. The primary files are maintained and archived at the Oregon State University.