VILLA ACETOCHLOR 900 EC

1. IDENTIFICATION OF PRODUCT AND COMPANY

Product Name: ACETOCHLOR 900 EC
Herbicide

UN No.: 1993
Supplier: Villa Crop Protection (Pty) Ltd.
PO Box 10413
Aston Manor, 1630, South Africa

Telephone: (011) 3962233
Fax: (011) 3964666
Website: www.villacrop.co.za

24 Hour Emergency response:
Bateleur: 083 1233 911 or 0860 333 911

In case of Poisoning:
Red Cross Poison Information Centre: 021 658 5428
Tygerberg Poison Information Centre: 021 931 6129
Griffon Poison Information Centre: 082 446 8946

2. COMPOSITION / INFORMATION ON INGREDIENTS

Common Name: Acetochlor
Chemical Name: 2-chloro-N-ethoxymethyl-6'-ethylacetoo-toluclidean (IUPAC)
CAS No.: [34256-82-1]
Chemical Family: chloracetamide
Chemical Formula: C_7H_8ClNO_2 (Mol. wt.: 269.8)
Formulation: Acetochlor: 900 g/l Emulsifiable concentrate
Use / Mode of Action: Selective pre-emergence herbicide, absorbed mainly by germinating plant shoots and secondly by roots. Inhibits protein synthesis.

Hazardous Ingredient: Acetochlor – 90 %
SYMBOLS: Xn, N, F
RISK-PHRASE(S): R 11, 22, 36/37/38, 40, 41, 43, 50

3. HAZARD IDENTIFICATION

Toxicity class:
WHO III (a.i.). Slightly hazardous.
Cause irritation to the skin and eyes.
May cause skin sensitisation by contact.
Aspiration into lungs may cause chemical pneumonitis. Combustible.
Very toxic to fish.

4. FIRST AID MEASURES AND PRECAUTIONS

Irritant effects on skin and mucous membrane are the most common reactions. Large ingestions can cause nausea, vomiting, abdominal distress and diarrhoea.

Inhalation:
Immediately remove source of contamination or move victim to fresh air. If breathing has stopped, perform artificial respiration and administer oxygen. Avoid mouth to mouth resuscitation. Keep person warm and at rest. Treat symptomatically and supportively as and when required. Seek medical advice immediately.

Skin contact:
Remove contaminated clothing, shoes and leather goods immediately. Gently wipe of excess chemical. Wash skin gently and thoroughly with non-abrasive soap or mild detergent and large amounts of water until no evidence of chemical remains (approximately 15 to 20 minutes). Seek medical advice if necessary.

Eye contact:
Flush eyes immediately with large amounts of gently flowing cold water or normal saline solution, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15 to 20 minutes). If irritation persists, get medical attention.

Ingestion:
Do not induce vomiting, due to the aromatic solvent. Seek medical advice immediately. If the person is alert and respiration is not depressed, give large quantity of water to drink. Never give anything by mouth to an unconscious person. Establish and maintain airway. Treat respiratory difficulty with artificial respiration and oxygen. Qualified medical personnel should perform administration of gastric lavage or oxygen.

Advice to physician:
Due to the solvent present, if small amount of the product is aspirated into the respiratory system during ingestion or from vomiting, bronchopneumonia or pulmonary edema may be caused. No specific antidote. Keep patient under observation and treat symptomatically as indicated by his/her condition.

5. FIRE FIGHTING MEASURES

Fire/Explosion hazard:
Flammable. Combustible.
Flash point: 23 °C
Combustion products are toxic and/or irritant. Inhalation of material could be harmful.

Extinguishing agents:
Extinguish fires with carbon dioxide, dry powder, or alcohol-resistant foam. Water spray can be used for cooling of unaffected stock, but avoid water coming in contact with the product. Use as little water as possible. Use spray or fog. Solid stream may cause spreading. Contain water used for fire fighting for later disposal. Avoid the accumulation of polluted run-off from the site.
VILLA ACETOCHLOR 900 EC

7. HANDLING AND STORAGE REQUIREMENTS

Handling:
Harmful if swallowed. Avoid inhalation and contact with eyes and skin. Use with adequate ventilation. Do not handle broken packages without protective equipment. Wash hands before eating, drinking, chewing gum, smoking, or using the toilet. Remove clothing immediately if the product gets inside. Then wash skin thoroughly using a non-abrasive soap and put on clean clothing. Seek medical advice.

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.

Worker should shower at the end of each work day. Launder all clothing before it is re-used again.

Storage:
Store in its original container in dry, cool, well-ventilated area. Avoid excess heat. Not to be stored next to foodstuffs and water supplies.

Keep out of reach of children, uninformed persons and animals. Do not contaminate other pesticides and fertilizers.

Storage stability:
Stable for a period of 2 years under normal warehouse conditions.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

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.

PERSONAL PROTECTIVE EQUIPMENT:
Respirator:
An approved full-face respirator suitable for protection from spray or mists of pesticides is required. Limitations of respirator use specified by the approved agency and the manufacturer must be observed.

Clothing:
Employee must wear appropriate protective (impervious) clothing; boots, hat and equipment to prevent repeated or prolonged skin contact with this substance. Do not wear leather clothing.

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

Eye protection:
The use of chemical resistant goggles or face shield.

Emergency eye wash: 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Light brown emulsifiable liquid.
Relative density: 1,106 ± 0.05 g/cm³ at 20 °C.
Solubility in water: Miscible with water. Gives a stable emulsion.
Flash point: 23 °C
Flammability: Combustible.
pH: Not available.

10. STABILITY AND REACTIVITY

Stability: Considered stable for a period of 2 years under recommended warehouse and light conditions.
Hazardous decomposition: Emits toxic and irritant vapours under fire conditions.

11. TOXICOLOGICAL INFORMATION

Formulation (calculated):
Acute oral LD₅₀: > 2000 mg/kg in rats.
Acute dermal LD₅₀: > 5000 mg/kg in rabbits.
Acute inhalation LC₅₀: Technical: > 3 mg/m³/4 hours.
Acute skin irritation: May cause severe irritation and damage. Cause dermatitis through defatting of tissue.
Acute eye irritation: May cause severe irritation and damage to the eyes.
Sensitization: May cause skin sensitization.
Teratogenicity/Development: Acetochlor did not induce either maternal or developmental toxicity in rabbits up to 300 mg/kg/day, the highest dose tested.
Mutagenicity: Acetochlor was weakly positive in the gene mutation assay with and without activation in the mouse lymphoma assay. However, negative in a DNA damage repair assay, Salmonella assay and chromosomal aberration studies. Positive evidence of mutagenicity was found in various studies at the mid- and high-dose levels.
Carcinogenicity:
In various studies carcinogenicity effects were noted.
Based on data, the US EPA has classified Acetochlor as a "probable human carcinogen". 
ADI: 0.01 mg/kg b.w.

12. ECOLOGICAL INFORMATION

In animals: The primary routes of metabolism for Acetochlor are glutathione conjugation and metabolism by cytochrome P450.
In plants: In maize and soybeans, Acetochlor is rapidly absorbed and metabolised in the germinating plant. In

maize, the first metabolite is glutathione, and in soybeans homoglutathione.
In the soil: Acetochlor is adsorbed by soil colloids and leached very little. The main method of degradation is microbial breakdown. Average persistence at recommended rates is 8 to 12 weeks, but vary depending on soil type and climatic conditions. It is very active on heavy or high organic matter soils.

ECOTOXICOLOGY:

Birds: moderately toxic to birds.
LD₅₀: Bobwhite quail: > 1260 mg/kg
LC₅₀ 5-day diet: Mallard ducks: > 5620 mg/kg
Quail: > 5620 mg/kg

Fish: Very toxic to fish.
LC₅₀ (96 hours): Bluegill sunfish: 1.5 mg/ℓ
Rainbow trout: 0.36 mg/ℓ

Daphnia: Very toxic to Daphnia.
Daphnia magna: 48-hour LC₅₀: 9 mg/ℓ

Bees: Moderately toxic to bees.
LD₅₀ (oral): > 100 µg/bee
LD₅₀ (contact, 24 hours): > 200 µg/bee

Earthworms:
LC₅₀ (14 days): 211 mg/kg soil

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 draining 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 rinsing 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 dumpsite. Prevent contamination of food, feedstuffs, drinking water and eating utensils.
Comply with local legislation applying to waste disposal.
14. TRANSPORT INFORMATION

UN No.: 1993
Road Transport ADR/IRD:
Class: 3
Subsidiary group: 3.2
Packing group: II
Shipping name: Flammable Liquid, N.O.S., (Acetochlor 900 g/l)

Maritime Transport IMDG/IMO:
Class: 3
Subsidiary group: 3.2
Packing group: II
Shipping name: Flammable Liquid, N.O.S. (Acetochlor 900 g/l)

15. REGULATORY INFORMATION

Symbol: Xn, N, F
Indication of danger: Harmful, Environmentally Hazardous Substance, Flammable substance

Risk phrases:
R 11 Highly flammable.
R 20/22 Harmful by inhalation and if swallowed.
R 36/37/38 Irritation to eyes, respiratory system and skin.
R 40 Limited evidence of a carcinogen.
R 41 Risk of serious damage to eyes.
R 43 May cause skin sensitisation by skin contact.
R 50 Very toxic to aquatic organisms.

Safety phrases:
S 1/2 Keep locked up and out of the reach of children.
S 16 Keep away from sources of ignition – No smoking.
S 24/25 Avoid contact with skin and eyes.
S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S 60 This material and its container must be disposed of as hazardous waste.

16. OTHER INFORMATION

Packing and Labelling:
Packed in 1, 5, 10, 20, and 25 litres fluorinated plastic containers and labelled according to the South African regulations and guidelines.

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 bit without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.

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