



## MATERIAL SAFETY DATA SHEET

### SECTION 1 - PRODUCT & COMPANY IDENTIFICATION

UPL South Africa (Pty) Ltd  
Co. Reg. No.: 2009/019713/07  
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**Substance:** acetochlor / dichlormid  
**Product Name:** **Acetochlor 700 S**  
**Product Use:** Herbicide  
**Creation Date:** June 2023  
**Revision Date:** June2023

#### 24 Hr Emergency Number:

#### In case of Poisoning:

Griffon Poison Information Centre: 082 4468946  
Poisons Information Helpline: 0861 555 777

#### In case of Spillage:

Spill Tech: 086 100 0366 / 083 253 6618

### SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS

**Common Name:** acetochlor  
**Chemical Name:** 2-chloro-*N*-ethoxymethyl-6'-ethylaceto-*O*-toluidide (IUPAC)  
**CAS No.:** [34256-82-1]  
**Chemical Family:** chloroacetamide  
**Chemical Formula:** C<sub>14</sub>H<sub>20</sub>ClNO<sub>2</sub> (Mol. wt.: 269.8)  
**Formulation:** acetochlor: 700 g/l plus  
Dichlormid as safener  
Emulsifiable concentrate

**Use / Mode of Action:** An emulsifiable concentrate herbicide with added safener for the pre-emergence control of annual grasses and certain broadleaf weeds.

#### Hazardous ingredients of toxicological concern:

<u>Inert:</u>	<u>concern:</u>	<u>% present:</u>
acetochlor	harmful, environmental hazard	> 70 %
other	severe irritant	± 30 %

**SYMBOLS:** Xn, N  
**RISK-PHASE(S):** R 20/22, 36/37/38, 40, 41, 43, 50

### SECTION 3 - HAZARD IDENTIFICATION

#### Toxicity class:

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

### SECTION 4 - FIRST AID MEASURES AND PRECAUTIONS

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

### **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:**

Have victim rinse mouth thoroughly with water. **Do not induce vomiting, due to the aromatic solvents. 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. Administration of gastric lavage or oxygen should be performed by qualified medical personnel.

### **Advice to physician:**

Due to the solvents 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.

## SECTION 5 - FIRE-FIGHTING MEASURES

### **Fire/Explosion hazard:**

**Not Flammable. Combustible. Fire risk.**

**Flash point:** 64 °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.

### **Fire fighting:**

Remove spectators from surrounding area. Isolate the fire area and evacuate downwind. Use a recommended extinguishing agent for the type of surrounding fire.

Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal. Avoid inhaling hazardous vapours and fumes from burning materials. Keep upwind.

Remove container from fire area if possible and without risk. Water can be used to cool unaffected containers but must be contained for later disposal.

Dyke fire control water for later disposal. Do not scatter the material. Avoid pollution of waterways.

Do not use high volume water jet, due to contamination risk. Contain water used for fire fighting for later disposal. Avoid the accumulation of polluted run-off from the site.

### **Personal protective equipment:**

Fire may produce irritating or poisonous vapours or gases (oxides of chlorine and sulphur) or other products of combustion. Fire fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus.

## SECTION 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:**

Acetochlor is toxic to fish and very toxic to algae. Is an environmentally hazardous substance.

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Do not allow entering drains or watercourses. Spillage or uncontrolled discharges into water courses (or public waters) to be reported immediately to the Police and to the Department of Water/Environmental Affairs.

### Occupational spill:

Do not touch spilled material; stop leak if you can do it without risk. Keep out unprotected persons and animals.

**For spills:** Soak up with absorptive material such as damp earth or sand or other suitable non-combustible absorbent material. 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. Prevent material from spreading by damming in with absorptive material. Do not flush spilled material into drains. Keep spectators away and upwind.

To decontaminate spill area, tools and equipment, wash with a suitable solution (i.e. organic solvent, detergent bleach or caustic). Add the solution to the drums already collected. Label drums with its content and dispose it in accordance with local regulations.

Open burning or dumping of this material is prohibited.

Do not get water inside containers.

## SECTION 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.

## SECTION 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:

It is usually safe to use the product without respirator. Where exposure through inhalation and eye contact may occur when handling and when preparing the spray mixture, wear a face mask. If the product is used in dusty or confined conditions or spillage and fire conditions a respirator suitable and approved for protection from dusts and mists of pesticides is adequate. 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.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Clear to almost clear, brown to purple liquid.

**Odour:** Aromatic.

**Relative density:** 1,095 ± 0,005

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**Solubility in water:** Miscible with water.  
**Flash point:** 65 °C

### SECTION 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.

### SECTION 11 - TOXICOLOGICAL INFORMATION

**Acute oral LD<sub>50</sub>:** > 2000 mg/kg in rats.  
**Acute dermal LD<sub>50</sub>:** > 5000 mg/kg in rabbits.  
**Acute inhalation LC<sub>50</sub>:** Technical: > 3 mg/l/4 hours.  
**Acute skin irritation:**  
May cause mild irritation. Cause dermatitis through defatting of tissue.

**Acute eye irritation:**

May cause mild 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.

### SECTION 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 soya beans, acetochlor is rapidly absorbed and metabolised in the germinating plant. In maize, the first metabolite is glutathione, and in soya beans 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.

LD <sub>50</sub> :	Bobwhite quail:	> 1260 mg/kg
LC <sub>50</sub> 5-day diet:	Mallard ducks:	> 5620 mg/kg
	Quail:	> 5620 mg/kg

**Fish:** Very toxic to fish.

LC <sub>50</sub> (96 hours):	Bluegill sunfish:	1.5 mg/l
	Rainbow trout:	0.36 mg/l

**Daphnia:** Very toxic to Daphnia.

<i>Daphnia magna</i> :	48-hour LC <sub>50</sub> :	9 mg/l
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**Bees:** Moderately toxic to bees.

LD <sub>50</sub> (oral):	> 100 µg/bee
LD <sub>50</sub> (contact, 24 hours):	> 200 µg/bee

**Earthworms:**

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LC<sub>50</sub> (14 days): 211 mg/kg soil.

### 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 No.: 3082

#### Road Transport ADR/IRD:

Class: 9

Packing group: III

Shipping name: Environmentally hazardous substance, liquid, N.O.S. (acetochlor 700 g/l)

#### Maritime Transport IMDG/IMO:

Class: 9

Packing group: III

Shipping name: Environmentally hazardous substance, liquid, N.O.S. (acetochlor 700 g/l)

### SECTION 15 - REGULATORY INFORMATION

Symbol: Xn, N

Indication of danger: Harmful, Environmentally Hazardous Substance

#### Risk phrases:

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 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.

### SECTION 16 - OTHER INFORMATION

#### Packing and Labelling:

Packed in 0.5, 1, 5, 10, 20, 25 and 50 litre fluorinated plastic containers and labelled according to the South African regulations and guidelines.

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**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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