

MATERIAL SAFETY DATA SHEET

4/2/14

1. PRODUCT AND COMPANY IDENTIFICATION

Supplier DOW AGROSCIENCES (PTY) LTD
Private Bag X160,
Bryanston.
2021

SPILLAGES:

Emergency telephone (+27) 032 5330716 or 082 887 8079
Fax (+27) 032 5336134

POISONINGS:

National Poison Centre 021-9386084 (office hours).
021-9316129 (after hours).

UOFS Pharmacology/Toxicology information centre:
0824910160

Product Name: GARLON* MAX 270 EW HERBICIDE

LV70: Issue Date: Oct. 2006
Revised: March 2010

Ref: GF-1365

2. COMPOSITION/INFORMATION ON INGREDIENTS**Components contributing to hazard:**

		CAS	EINECS
Triclopyr-2-butoxyethyl ester	248g	064700-56-7	265-024-8
Aminopyralid (Pyridine Compound) [as The Potassium salt]	30 g/l	150114-71-9	
Inert Ingredients (including Propylene glycol)	Balance	57-55-6	
UN No.:	3082		

3. HAZARDS IDENTIFICATION

Low toxicity if swallowed.
May cause eye irritation with temporary corneal injury.
May cause skin irritating. May cause sensitization by skin contact in some individuals.
Toxic to aquatic organisms.

4. FIRST-AID MEASURES

Never give fluids or induce vomiting if patient is unconscious or is having convulsions.

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.



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Eye Contact

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing the eyes.

Skin Contact

Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Consult a physician. Wash contaminated clothing before reuse.

Inhalation

Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, and then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc).

Note to Physician

No specific antidote. Supportive care. Treatment based on judgement of physician in response to symptoms of patient.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Water fog or fine spray. Carbon dioxide. Dry chemical. Foam.

Hazardous Combustion Products

Nitrogen oxides. Hydrogen chloride. Phosgene. Dependent on the intensity of the fire.

Protection of Firefighters

Wear protective clothing and use self-contained breathing apparatus.

Additional Information

Keep containers cool by spraying with water. Contain runoff to prevent entry into water or drainage systems.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Wear appropriate safety clothing and eye/face protection (see Section 8).

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-reactive absorbent material and place into containers for later disposal. For large spills, barricade area and consult manufacturer. If further assistance is required, telephone the emergency contact number.



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7. HANDLING AND STORAGE

Handling

Keep out of reach of children. Use good personal hygiene. Do not consume or store food in the work area. Wash hands and exposed skin thoroughly with soap and water before eating, drinking or smoking and after work. Avoid eye and skin contact.

Storage

Product should be stored in compliance with local regulations. Store original container 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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Triclopyr: Dow AgroSciences IHG is 2 mg/m³ (skin). Propylene Glycol: AIHA WEEL is 50 ppm total, 10 mg/M³ aerosol only.

Engineering Controls

Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

Respiratory Protection

When airborne exposure guidelines and/or comfort levels may be exceeded, use an approved air-purifying respirator.

For emergency conditions, use an approved positive-pressure self-contained breathing apparatus. The respirator should contain an organic vapor sorbent.

Hand/Skin Protection

For brief contact, no precautions other than clean body-covering clothing and impervious gloves should be needed. When prolonged or frequently repeated contact could occur, use protective clothing impervious to this material.

For emergency conditions: Use protective clothing impervious to this material. Selection of specific items will depend on operation.

Eye/Face Protection

Use safety glasses. Where contact with the liquid is likely, chemical goggles are recommended.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid
Colour	: White to tan
Odour	: Slight
Rel. density (water=1)	: 1.134 g/ml
Water solubility	: Emulsifiable
Flash point	: >100 °C
pH	: 7,86

10. STABILITY AND REACTIVITY**Chemical Stability**

Is stable under normal storage conditions.

Conditions to Avoid

Avoid extremes of temperature.

Materials to Avoid

Not determined.

Hazardous Decomposition Products

None under normal conditions of storage and use.

11. TOXICOLOGICAL INFORMATION**Ingestion**

Single dose oral toxicity is considered to be moderate.

The oral LD₅₀ for rats is > 5000,0 mg/kg

Skin Contact

The dermal LD₅₀ for rats is >5000,0 mg/kg.

Will cause skin irritation.

Sensitisation

It is skin sensitiser.

Eye Contact

May cause temporary mild eye irritation. Corneal injury is unlikely.

Inhalation

No adverse effects anticipated by this route of exposure incidental to proper handling.

Teratology

Has been toxic to the fetus in laboratory animals at doses toxic to the mother. For a similar material, did not cause birth defects in laboratory animals. Did not cause birth defects or other effects in the fetus even at doses which caused toxic effects in the mother.

Mutagenicity

Negative

Reproductive effects

For a similar material, in laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.

Carcinogenicity

A similar material did not cause cancer in laboratory animals.

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12. ECOLOGICAL INFORMATION**Aquatic Toxicity**

GARLON* MAX 270 EW is toxic to fish and Daphnia on an acute basis.

Rainbow trout LC₅₀ is 4,0 mg formulation/L

Daphnia LC₅₀ 3,7 mg/L) formulation.

Navicula pelliculosa: 3,7 mg formulation/L

Avian Toxicity

GARLON* MAX 270 EW is practically non-toxic to birds on an acute basis (Northern Bobwhite quail LD₅₀ is 2002 mg/kg b.w.).

Bees: Non-toxic to bees. LD₅₀ >200µg/bee.

Earthworm(Eisenia foetida): Not toxic.

Other Information**Persistence and Degradability**

Data not available on the formulated product.

Assessment largely or completely based on data for the Triclopyr active ingredient.

Rapidly hydrolysed in soil and water (with a half-life of less than 1 day) to the parent acid, which undergoes further degradation.

Half-life of the parent acid in soil and water is dependent on conditions and is approximately 6-52 days.

The half-life of one of the breakdown products (trichloropyridinol) in 15 soils ranged from 8 to 279 days. Triclopyr is not strongly adsorbed to soil particles and has the potential to be mobile

Bio-concentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5). Measured log octanol/water partition coefficient (Log Pow) is 4.09.

13. DISPOSAL CONSIDERATIONS

Toxic to aquatic organisms. Do not contaminate ponds, waterways or ditches with chemical or used container. Wash out thoroughly. Container and washings must be disposed of safely and in accordance with applicable regulations. The preferred options are to send to licensed reclaimer or to permitted incinerators. Do not re-use container for any purpose.

14. TRANSPORT INFORMATION

UN no.: 3082

ADR

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s (contains Triclopyr-2-butoxyethyl ester and aminopyralid).

Class: 9

Classification code: M6

Packaging group: III

Label: 9

Hazard ID no: 90

IMDG

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s.(contains Triclopyr-2-butoxyethyl ester and aminopyralid).

Class: 9

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Label: 9 Marine Pollutant
Packing Group: III

ICAO/IATA

Proper shipping name: Environmentally hazardous substance , liquid ,
n.o.s. (contains Triclopyr-2-butoxyethyl ester and aminopyralid).

Class: 9
Label: 9
Packing Group: III
Pack Instr. Passenger: 911
Pack Instr. Cargo: 911

Tremcard Nr. CEFIC: 90GM6-III

Remarks: Sample shipment not allowed by mail.

15. REGULATORY INFORMATION

Hazard Symbol : Xn-Harmful; Xi- Irritant; N-Dangerous for the environment.

Risk Phrases : Harmful if swallowed. (R22)
Irritating to skin. (R38)
May cause sensitisation by skin contact. (R43)
Toxic to aquatic organisms, may cause long-term adverse
effects in the aquatic environment (R51/53)

Safety Phrases : Keep out of reach of children. (S2)
Keep away from food, drink and animal feeding stuffs.
(S13)
When using do not eat, drink or smoke. (S20/21)
Avoid contact with skin. (S24)
Wear suitable protective clothing, gloves and
eye/face protection. (S36/37/39)
In case of accident or if you feel unwell, seek
medical advice immediately (Show the label where
possible). (S45)
Avoid release to the environment. Refer to special
instructions/Safety data sheets. (S61)

National legislation: In accordance with the South African National Road
Traffic Act, 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**REFERENCES**

- Applicable own physical and chemical, toxicity and eco-toxicity research studies.
- The Pesticide Manual; Eleventh Edition; Editor Clive Tomlin; Crop Protection Publications, 2003.
- SABS 0265:1999.
- Dangerous Goods Regulations, IATA, 47th Edition Effective 1 January 2006.
- IMDG CODE, VOL.2, 2005 Edition.
- ADR-Vol. 1, 1 January 2005.



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All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and is presented in good faith and believed to be correct. This information applies to the PRODUCT AS SUCH. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons in receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces formulations(s) containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.

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END OF MSDS.