

Dix van Dam

From: "Pat" <pschaefer@ecoguard.co.za>
To: <sales@hlatini.co.za>
Sent: 19 November 2009 03:45 PM
Subject: Msds - Garlon 480 EC - New



PAGE

1 OF 7

MATERIAL SAFETY DATA SHEET

19/11/09

1. PRODUCT AND COMPANY IDENTIFICATION

Supplier DOW AGROSCIENCES (PTY) LTD
 Private Bag X55,
 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* 480 EC HERBICIDE**

LV70: 38322 Issue Date: Dec. 93 Ref: H851V
 Revised: July 02

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

| | | CAS | EINECS |
|---|---------|-------------|-----------|
| Triclopyr-2-butoxyethyl ester (665 g/l) | 480g/L | 064700-56-7 | 265-024-8 |
| Solvent plus inert Ingredients | Balance | | |
| NIOSH/RTECS NO | | | |
| UN no | 3082 | | |

3. HAZARDS IDENTIFICATION

Harmful if swallowed.
 Irritating to skin.
 May cause sensitization by skin contact.
 Harmful 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.

* Trademark of Dow AgroSciences



2 OF 7

PAGE

MATERIAL SAFETY DATA SHEET

19/11/09

GARLON* 480 EC HERBICIDE

Eye Contact

Irrigate immediately with water for at least 5 minutes.

Skin Contact

Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Wash contaminated clothing before reuse.

Inhalation

Remove to fresh air. Consult a physician.

Note to Physician

No specific antidote. If lavage is performed, suggest endotracheal and/or oesophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. 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-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.



3 OF 7

PAGE

MATERIAL SAFETY DATA SHEET

19/11/09

GARLON* 480 EC HERBICIDE

7. HANDLING AND STORAGE

Handling

Use good personal hygiene. Do not consume or store food in the work area. Wash hands and exposed skin before eating, drinking or smoking and after work. Avoid eye and skin contact.

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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Triclopyr: Dow AgroSciences IHG is 2 mg/m³ (skin).

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.

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.



OF 7

PAGE 4

MATERIAL SAFETY DATA SHEET

19/11/09

GARLON* 480 EC HERBICIDE

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-----------------------------|------------------------------------|
| Appearance | : liquid |
| Colour | : amber |
| Rel. density (water=1) | : 1.08 g/cm ³ (approx.) |
| Rel. vapour density (air=1) | : >1 |
| Boiling point/range | : 150 deg.C |
| Water solubility | : emulsifiable |
| Flash point | : 64 deg.C |

10. STABILITY AND REACTIVITY

Chemical Stability

Is stable under normal storage conditions.

Conditions to Avoid

Avoid extremes of temperature. Closed containers may explode due to pressure build-up when subjected to excessive heat or intense fire.

Materials to Avoid

Strong basic, acidic or oxidising materials.

Hazardous Decomposition Products

None under normal conditions of storage and use.

11. TOXICOLOGICAL INFORMATION

Toxicity Class: WHO: III

Ingestion

Single dose oral toxicity is considered to be moderate.
The oral LD₅₀ for rats is 1100 mg/kg.

Skin Contact

The dermal LD₅₀ for rats is >2000mg/kg.
A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts.
Short single exposure may cause skin irritation.

Sensitisation

Known or suspected skin sensitiser.

Eye Contact

May cause slight eye irritation.

Inhalation

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



5 OF 7

PAGE

MATERIAL SAFETY DATA SHEET

19/11/09

GARLON* 4 HERBICIDE

12. ECOLOGICAL INFORMATION

Persistence and Degradability

Assessment largely or completely based on data for 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

Aquatic Toxicity

Material is highly toxic to fish on an acute basis (0.1mg/L <LC50 <1.0mg/L).

Material is moderately toxic to aquatic invertebrates on a static acute basis (1mg/L <LC50 <10mg/L).

Avian Toxicity

Material is practically non-toxic to birds on an acute basis (LD50 >2000mg/kg).

Other Information

Non-toxic to bees.

13. DISPOSAL CONSIDERATIONS

Harmful to fish. 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

Road, Rail & Barge

Proper shipping name: 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (Contains 61,6% D'ESTER DE 2-BUTOXYETHYL DU TRICLOPYR)

Truck - ADR Loaded : 9-11c Empty : 9-21 Label : 9

Rail - RID Loaded : 9-11C Empty : 9-21 Label : 9

Filling % Packed : :

Filling % Bulk : :

Filling Kg/L (Gas) : :

Kemler Code : 90 UN Number : 3082

Tremcard Nr. CEFIC : 30GM6-III

Tremcard Nr. Other : :

Barge - ADNR Loaded : 9-11c Empty : 9-21 Label: 9

Ship Type : CATG. : :



6 OF 7

PAGE

MATERIAL SAFETY DATA SHEET

19/11/09

GARLON* 480 EC HERBICIDE

Sea

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE , LIQUID ,
N.O.S. (CONTAINS 61,6% D'ESTER DE 2-BUTOXYETHYL
DU TRICLOPYR)

| | | | | | |
|-----------------------|-------|--------------------|--------|--------|-----------|
| Sea - IMO/IMDG Class: | 9 | UN Nr | : 3082 | Label: | - |
| Packing Group | : III | EMS | : - | MFAG | : - |
| Container Type | : 2 | Marine Pollutant | | | : Y (Y/N) |
| Test Pressure (bar) | : 1.5 | Filling % Packed | | | : |
| | | Filling % Bulk | | | : |
| | | Filling Kg/L (Gas) | | | : |

Air

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE , LIQUID ,
N.O.S. (CONTAINS 61,6% D'ESTER DE 2-BUTOXYETHYL
OF TRICLOPYR)

| | | | | | |
|---------------------|-------|-----------------------|--------|--------|-------|
| Air-ICAO/IATA Class | : 9 | UN Nr | : 3082 | Label: | 9 |
| Sub Class | : | | | | |
| Packing Group | : III | Pack Instr. Passenger | | | : 911 |
| | | Pack Instr. Cargo | | | : 911 |

Remarks : Sample shipment not allowed by mail.

15. REGULATORY INFORMATION

Hazard Symbol : Xn - Harmful

Risk Phrases : Harmful if swallowed. (R22)
Irritating to skin. (R38)
May cause sensitisation by skin contact. (R43)

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)

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

This Material Safety Data Sheet complies with basic South African and EU regulatory requirements for Safety Data Sheets on the date of publication, and is intended for translation and adaptation into European National documents. This document should NOT be relied upon for compliance with the laws and regulations of individual countries without the appropriate local translations and adaptations. It is your responsibility to ensure that any Safety Data Sheet taken or adapted from this system for



7 OF 7

PAGE

MATERIAL SAFETY DATA SHEET

19/11/09

GARLON* 480 EC HERBICIDE

re-distribution or use complies with all the laws and regulations which apply to any such use or re-distribution.