



SAFETY DATA SHEET

SECTION 1 - PRODUCT & COMPANY IDENTIFICATION

UPL South Africa (Pty) Ltd
Co. Reg. No.: 2009/019713/07
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Substance: Bromacil and Terbutylazine
Product Name: Comet GR
Product Use: Herbicide
Creation Date: July 2020
Revision Date: July 2023

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: (1) Bromacil; (2) Terbutylazine
Chemical Name: (1) 5-bromo-3-sec-butyl-6-methyluracil (IUPAC)
(2) *N*²-tert-butyl-6-chloro-*N*⁴-ethyl-1,3,5-triazine-2,4-diamine (IUPAC)
CAS No.: (1) 314-40-9; (2) 5915-41-3
Chemical family: (1) Uracil; (2) 1,3,5-Triazine
Chemical Formular: (1) C₉H₁₃BrN₂O₂ (Mol. wt. 261.1); (2) C₉H₁₆CIN₅ (Mol. wt. 229.7)
Formulation: Bromacil 80 g/kg
Terbutylazine 120 g/kg
Granular
Use: A non-selective root absorbed granular herbicide with extended residual action for the control of undesirable vegetation on non-crop land and on industrial sites.

Hazardous ingredients of toxicological concern:

| <u>Ingredient:</u> | <u>concern:</u> | <u>% present:</u> |
|--------------------|-------------------------------|-------------------|
| bromacil | harmful, environmental hazard | < 10 % |
| terbutylazine | harmful, environmental hazard | > 12 % |
| other | | ± 78 % |

Symbol: Xn, N
Indication of Danger: Harmful, Environmentally Hazardous Substance
RISK-PHRASE(S) R22, R36/38, R52/53

SECTION 3 - HAZARD IDENTIFICATION

Harmful if swallowed.
Irritating to eyes, respiratory system and skin.
Harmful to aquatic organisms – may cause long term effects in aquatic environment

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SECTION 4 - FIRST AID MEASURES AND PRECAUTIONS

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 off 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:

No specific antidote. Keep patient under observation and treat symptomatically as indicated by his/her condition.

SECTION 5 - FIRE-FIGHTING MEASURES

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:

Comet GR is an environmentally hazardous substance and is harmful to aquatic organisms.

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. Keep out unprotected persons and animals.

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For spills: 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. 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:

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

| | |
|-------------------------------|-----------------------|
| Form: | Free flowing granules |
| Colour: | brown / off white |
| Odour: | odourless |
| Density (g/ml): | 0.8 ± 0.15 |
| Flash point: | None |
| pH: | 5-9 |
| Vapour pressure (mPa): | negligible |

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| Water content (%): | < 2% |
| Wettability (seconds): | <10secs |
| Persistent foam: | Max 25 ml after 1 min |
| Suspensibility: | Min 60% |

SECTION 10 - STABILITY AND REACTIVITY

Stability:

Considered stable for a period of 2 years under recommended warehouse conditions.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute Effects:

Oral LD₅₀ (rat):

| | |
|----------------|------------|
| Bromacil | 1414 mg/kg |
| Terbuthylazine | 1590 mg/kg |

Dermal LD₅₀ (rat):

| | |
|----------------|-----------------------|
| Bromacil | > 5000 mg/kg (rabbit) |
| Terbuthylazine | > 2000 mg/kg (rats) |

Inhalation LC₅₀ (4 hours):

| | |
|----------------|----------------|
| Bromacil | > 5.6 mg/l air |
| Terbuthylazine | |

Skin irritation:

| | |
|----------------|------------------------|
| Bromacil | Moderate skin irritant |
| Terbuthylazine | No skin irritation |

Eye irritation:

| | |
|----------------|-------------------|
| Bromacil | Mild eye irritant |
| Terbuthylazine | No eye irritation |

Sensitisation:

| | |
|----------------|-----------------------|
| Bromacil | Data not available |
| Terbuthylazine | Not a skin sensitizer |

SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICOLOGY:

Bees LD₅₀

| | |
|----------------|--------------|
| Bromacil | 193 µg/bee |
| Terbuthylazine | > 200 µg/bee |

Birds LD₅₀

| | |
|----------------|--------------------------------|
| Bromacil | 2250 mg/kg (bobwhite quail) |
| Terbuthylazine | > 1000 mg/kg (ducks and quail) |

Fish LC₅₀ (96h)

| | |
|----------------|--|
| Bromacil | 36 mg/l (rainbow trout); 127 ppm (bluegill sunfish) |
| Terbuthylazine | 2.2 mg/l (rainbow trout); 52 mg/l (bluegill sunfish) |

Crustacea LC₅₀ (48h)

| | |
|----------------|---------------------|
| Bromacil | 121 ppm (Daphnia) |
| Terbuthylazine | 69.3 mg/l (Daphnia) |

Algae EC₅₀ (72h)

| | |
|----------------|---|
| Bromacil | 6.8 ppb (<i>Selenastrum capricornutum</i>) |
| Terbuthylazine | 0.016 – 0.024 mg/l (<i>Scenedesmus subspicatus</i>) |

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Persistence / degradability

| | |
|---------------|--|
| Bromacil | Duration of residual activity in soil is approximately 5 months |
| Terbutylazine | DT ₅₀ 6.5-149 days in field studies in biologically active 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. Prevent contamination of food, feedstuffs, drinking water and eating utensils. Comply with local legislation applying to waste disposal.

SECTION 14 - TRANSPORT INFORMATION

UN No.: 3077

Road Transport ADR/IRD:

Class: 9
 Packing group: III
 Shipping name: Environmentally hazardous substance, solid, n.o.s. (Bromacil 80 g/kg +Terbutylazine 120 g/kg)

Maritime Transport IMDG/IMO:

Class: 9
 Packing group: III
 Shipping name: Environmentally hazardous substance, solid, n.o.s. (Bromacil 80 g/kg +Terbutylazine 120 g/kg)

SECTION 15 - REGULATORY INFORMATION

Symbol: Xn, N

Indication of Danger: Harmful, Environmentally Hazardous Substance

Risk phrases:

R 22 Harmful if swallowed
 R 36/37 Irritating to eyes, respiratory system and skin
 R52/53 Harmful to aquatic organisms – may cause long term effects in aquatic environment

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.
 S 61 Avoid release into the environment; refer to special instructions / material safety data sheet.

SECTION 16 - OTHER INFORMATION

Packing and Labelling:

Packed in 1, 5, 10, 20, and 25 kg bags or plastic bottles 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 or 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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