



# Comet GR

## Safety Data Sheet

according to the GHS Classification and labelling of chemicals – SANS 10234 and the Regulations for Hazardous Chemical agents 2021.  
Issue date: 22/09/2022 Date of revision: 07/04/2025 Version. 1.0

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixture  
Name : Comet GR  
Trade name : Comet GR  
Product code : UPL\_L7524

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Relevant identified uses

Main use category : Herbicide  
Industrial/Professional use spec : Herbicide  
Industrial  
For professional use only  
Use of the substance/mixture : 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.

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

UPL South Africa (Pty) Ltd.  
Sunbury Office Park (off Douglas Saunders Drive) La Lucia Ridge, 7  
P.O. Box 1726, Mount Edgecombe, 4300  
4019 Durban – South Africa  
South Africa  
T +27 31 514 5600  
[www.upl-ltd.com/za](http://www.upl-ltd.com/za)

#### 1.4. Emergency telephone number

Emergency number : 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: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to UN GHS Purple Book (Rev. 9, 2021 )

Acute toxicity (oral), Category 5	H303
Specific target organ toxicity — Repeated exposure, Category 2	H373
Hazardous to the aquatic environment — Acute Hazard, Category 1	H400
Hazardous to the aquatic environment — Chronic Hazard, Category 1	H410

Full text of H- and EUH-statements: see section 16

##### Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

##### Labelling according to UN GHS Classification (Purple Book, Rev.9, 2021 )

Hazard pictograms :



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	GHS08	GHS09
Signal word	: Warning	
Contains	: Terbutylazine; Bromacil; Red oxide	
Hazard statements	: H303- May be harmful if swallowed. H373 - May cause damage to organs through prolonged or repeated exposure. H400 - Very toxic to aquatic life. H410 - Very toxic to aquatic life with long lasting effects.	
Precautionary statements	: P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P260 - Do not breathe dust. P273 - Avoid release to the environment. P280 - Wear protective clothing, eye protection, face protection. P301+P312 - IF SWALLOWED: Call doctor, a POISON CENTER if you feel unwell. P308+P313 - IF exposed or concerned: Get medical advice/attention. P314 - Get medical advice/attention if you feel unwell. P330 - Rinse mouth. P391 - Collect spillage. P405 - Store locked up. P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.	

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to UN GHS Purple Book, Rev.9, 2021 .
Terbutylazine	CAS-No.: 5915-41-3 EC-No.: 227-637-9	10 – 20	Acute Tox. 4 (Oral), H302 Acute Tox. 5 (Dermal), H313 STOT RE 2, H373 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)
Bromacil	-	10 – 20	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Red oxide	-	1 – 5	Flam liq. 3, H226 STOT SE 3, H336 Aquatic Chronic 3, H412

Full text of H- and EUH-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: Avoid all unnecessary exposure. After contact with skin, wash immediately with plenty of water and soap. Call a POISON CENTER/doctor. Remove the victim away from contaminated area. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Suspected of causing cancer.
First-aid measures after inhalation	: Remove to fresh air and keep at rest in a position comfortable for breathing. If breathing stops, give artificial respiration. If breathing is difficult, give oxygen. Immediately call a POISON CENTER/doctor. Allow affected person to breathe fresh air. Allow the victim to rest.

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First-aid measures after skin contact	: For even minor contact, immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact	: Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). Immediately call a POISON CENTER or doctor/physician. Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion	: Rinse mouth with water, do not induce vomiting, call a doctor. Never give anything by mouth to an unconscious person. Drink plenty of water as a precaution. Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects : Causes damage to organs.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively in response to reactions of patient.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Alcohol resistant foam. Carbon dioxide (CO <sub>2</sub> ). Water fog. Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Water spray. Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard	: Carbon oxides (CO, CO <sub>2</sub> ). Toxic fumes may be released. Sulphur oxides.
Hazardous decomposition products in case of fire	: Carbon oxides (CO, CO <sub>2</sub> ). Sulphur oxides. Toxic and irritating gases are released.

### 5.3. Advice for firefighters

Precautionary measures fire	: Evacuate area.
Firefighting instructions	: Appropriate self-contained breathing apparatus may be required. Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	: Wear personal protection equipment. Self-contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Protective equipment	: Personal protective equipment. Wear eye protection. Gloves. In case of insufficient ventilation, wear suitable respiratory equipment.
Emergency procedures	: Avoid contact with skin and eyes. Avoid breathing fume, vapours, gas. Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection.
Emergency procedures	: Ventilate area.

### 6.2. Environmental precautions

Harmful to aquatic life. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

For containment	: Do not touch or walk on the spilled product. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
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Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it. Collect up the product and place it in a spare container suitably labelled. On land, sweep or shovel into suitable containers. Minimise generation of dust. Store away from other materials.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : Do not allow run-off from fire fighting to enter drains or water courses. Ensure good ventilation of the work station.

Precautions for safe handling : Avoid any direct contact with the product. Handle in accordance with good industrial hygiene and safety procedures. Remove contaminated clothing and shoes. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapours/spray.

Hygiene measures : Take off contaminated clothing and wash it before reuse. Do not drink, eat or smoke in the workplace. Always take a shower after work. Handle in accordance with good industrial hygiene and safety practice. Wear personal protective equipment. Keep away from food, drink and animal feedingstuffs.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep out of reach of children. Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

Maximum storage period : 2 year(s) under normal storage warehouse conditions.

Storage area : Keep out of direct sunlight. Store away from heat. Store in a well-ventilated place.

Special rules on packaging : meet the legal requirements.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

No additional information available

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

#### 8.1.5. Control banding

No additional information available

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

No additional information available

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### 8.2.2. Personal protection equipment

#### Personal protective equipment:

Avoid all unnecessary exposure.

#### 8.2.2.1. Eye and face protection

##### Eye protection:

Chemical goggles or safety glasses

#### 8.2.2.2. Skin protection

##### Hand protection:

Wear protective gloves.

#### 8.2.2.3. Respiratory protection

##### Respiratory protection:

Wear appropriate mask

#### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### Other information:

Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Off-white. brown.
Appearance	: Water-dispersible granules.
Odour	: None.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Non flammable.
Explosive limits	: Not applicable
Lower explosive limit (LEL)	: Not applicable
Upper explosive limit (UEL)	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: 5 – 9
pH solution	: Not available
Viscosity, kinematic	: Not applicable
Solubility	: Water: < 10 g/ml
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: 0.8 g/ml
Relative density	: Not available
Relative vapour density at 20 °C	: Not applicable
Particle size	: Not available
Particle size distribution	: Not available
Particle shape	: Not available
Particle aspect ratio	: Not available
Particle aggregation state	: Not available
Particle agglomeration state	: Not available
Particle specific surface area	: Not available
Particle dustiness	: Not available

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### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

The product is stable at normal handling and storage conditions. Not established.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in UN GHS Purple Book (Rev. 9, 2021 )

Acute toxicity (oral)	: May be harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

#### Comet GR

ATE calculated oral	2857.14 mg/kg
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#### Bromacil

LD50 oral rat	1000 - 500 mg/kg
LD50 dermal rat	> 5000 mg/kg
LC50 Inhalation - Rat	> 5.6 mg/l/4h

#### Terbutylazine (5915-41-3)

LD50 oral rat	1590 mg/kg
LD50 dermal rat	2000 mg/kg
LC50 Inhalation - Rat	5.3 mg/l/4h

Skin corrosion/irritation	: Not classified pH: 5 – 9
Additional information	: Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Not classified pH: 5 – 9
Additional information	: Based on available data, the classification criteria are not met

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Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Suspected of causing cancer (through prolonged or repeated exposure).
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-single exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-repeated exposure	: May cause damage to organs through prolonged or repeated exposure
Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met

### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

No additional information available

#### 11.2.2. Other information

Potential adverse human health effects and symptoms : May be harmful if swallowed.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - water	: Very toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term (chronic)	: Very toxic to aquatic life with long lasting effects.
Not rapidly degradable	

Comet GR	
ATE calculated Fish	3.76 mg/l
ATE calculated Daphnia	85.6 mg/l
ATE calculated Algae	0.01 mg/l
Bromacil (314-40-9)	
LC50 - Fish	36 mg/l rainbow
LC50 fish	127 mg/l
EC50 - Crustacea	121 mg/l
EC50 72h - Algae	≈ 0.0068 mg/l
Terbutylazine (5915-41-3)	
LC50 - Fish	2.2 mg/l (Rainbow trout)
EC50 - Daphnia	>69.3 mg/l
ErC50 algae	0.016 mg/l/72h

### 12.2. Persistence and degradability

Comet GR	
Persistence and degradability	May cause long-term adverse effects in the environment.

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### 12.3. Bioaccumulative potential

Comet GR	
Bioaccumulative potential	Not established.
Bromacil (314-40-9)	
Partition coefficient n-octanol/water (Log Kow)	1.88
Terbutylazine (5915-41-3)	
BCF - Fish [1]	34 (Lepomis macrochirus)
Partition coefficient n-octanol/water (Log Kow)	≈ 3.4

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

Additional information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.  
Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.  
Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information


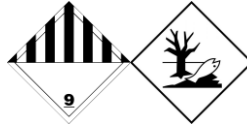

In accordance with ADR / IMDG / IATA

ADR	IMDG	IATA
14.1. UN number or ID number		
UN 3077	UN 3077	UN 3077
14.2. UN proper shipping name		
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ((Bromacil 80 g/kg +Terbutylazine 120 g/kg))	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ((Bromacil 80 g/kg +Terbutylazine 120 g/kg))	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ((Bromacil 80 g/kg +Terbutylazine 120 g/kg))
Transport document description		
UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ((Bromacil 80 g/kg +Terbutylazine 120 g/kg)), 9, III, (-)	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ((Bromacil 80 g/kg +Terbutylazine 120 g/kg)), 9, III, MARINE POLLUTANT	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ((Bromacil 80 g/kg +Terbutylazine 120 g/kg)), 9, III
14.3. Transport hazard class(es)		
9	9	9

# Comet GR

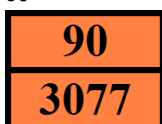
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ADR	IMDG	IATA
		
<b>14.4. Packing group</b>		
III	III	III
<b>14.5. Environmental hazards</b>		
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes
No supplementary information available		

### 14.6. Special precautions for user

Hazard identification number (Kemler No.) : 90  
Orange plates :



### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulatory Information:

**Relevant regulatory information regarding authorization, Safety Data Sheets, Occupational Exposure Limits, Hazardous Substances, Dangerous Goods Transport and Waste South Africa:** Occupational Health and Safety Act 1993. Regulations for Hazardous Chemical Agents - 2021. Fertilizer, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act 36 of 1947). Hazardous Substances Act, 1973 (Act No.15 of 1973). Regulations for Hazardous Chemical Agents – 2021. SANS11014:2010. Safety Data Sheet for Chemical Products – Content and Order of Sections. SANS10206: 2020. The Handling, Storage and Disposal of Pesticides. National Road Traffic Act, 1996 (Act No. 93 of 1996). SANS 10228:2012- The identification and classification of dangerous goods for transport by road and rail modes. National Environmental Management: waste Act 59 of 2008 .

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Data sources : Pesticide manual, Supplier SDS, ECHA  
Other information : None.

### Full text of H- statements:

Acute Tox. 5 (Oral)	Acute toxicity (oral), Category 5
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
H303	May be harmful if swallowed.

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### Full text of H- statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2

### Classification and procedure used to derive the classification for the mixture according to the UN GHS Purple Book (Rev.9, 2021 ):

Acute Tox. 5 (Oral)	H303	Calculation method
STOT RE 2	H373	Calculation method
Aquatic Acute 1	H400	Calculation method
Aquatic Chronic 1	H410	Calculation method

Safety Data Sheet (SDS), UN GHS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.