

# UNIVERSAL GENIUS 150 EC

# SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** GENIUS 150 EC  
**Other identifier:** Flumetralin 150 EC  
**Recommended use:** Plant Growth Regulator  
**Restrictions on use:** Agriculture

**Supplier:** Universal Crop Protection (Pty) Ltd.  
**Co. Reg. No.:** 1983/008184/07/  
 PO Box 801  
 Kempton Park, 1620, South Africa  
**Telephone:** (011) 3962233  
**Fax:** (011) 3964666  
**Website:** [www.villacrop.co.za](http://www.villacrop.co.za)

### Emergency telephone numbers:

#### 24 Hr Transport / Spill emergency no:

Envirosure. +27 31 205 4918  
 (Hazcall24) +27 86 044 4411  
 (Client: Villa Crop Protection)  
 Griffon Poison Information Centre +27 82 446 8946  
 (Client: Villa Crop Protection)

#### Poisoning Emergency telephone numbers:

Griffon Poison Information Centre +27 82 446 8946  
 Poisons Information Centre +27 861 555 777

#### Villa Crop Protection Emergency number:

**National Safety, Health and Environmental Manager:**  
 +27 63 698 0668

## 2. HAZARDS IDENTIFICATION

UN GHS, Regulation EC 1272/2008 [EU-GHS/CLP] EU & SANS 10234:2008		
Hazard classes	Hazard categories	H-statements
<b>Physiochemical</b>		
Flammable liquid	Flam. Liquid 3	H226
<b>Health</b>		
Oral	Acute Tox. 5	H303
Aspiration hazard	Asp. Tox. 1	H304
Dermal	Acute Tox. 5	H313
Skin irritation	Skin Irrit. 2	H315
Skin Sensitizer	Skin Sens. 1	H317
Eye irritation	Eye Irrit. 2	H319
Inhalation	Acute Tox. 3	H331
Mutagenicity	Muta. 1B	H340
Carcinogenicity	Carc. 1B	H350
<b>Environment</b>		
Aquatic acute	Aquatic acute 1	H400
Aquatic chronic	Aquatic chronic 1	H410

### The most important adverse effects:

**Physiochemical effects:** Flammable liquid and vapour.  
**Human health effects:** Toxic if inhaled. Causes skin irritation. Causes serious eye irritation. May cause genetic defects.  
 May cause cancer.  
 May be fatal if swallowed and enters airways.

### Label elements:



**Signal word:** Danger.

### Hazard statements:

H226: Flammable liquid vapour.  
 H303: May be harmful if swallowed.  
 H304: May cause genetic defects.  
 H313: May be harmful in contact with skin.  
 H315: Causes skin irritation.  
 H317: May cause an allergic skin reaction.  
 H319: Causes serious eye irritation.  
 H331: Toxic if inhaled.  
 H340: May cause genetic defects.  
 H350: May cause cancer.  
 H400: Very toxic to aquatic life.  
 H410: Very toxic to aquatic life with long lasting effects.

### Precautionary statements:

P202: Do not handle until all safety precautions have been read and understood.  
 P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P233: Keep container tightly closed.  
 P261: Avoid breathing mist, vapours and spray.  
 P264: Wash hands and face thoroughly after handling.  
 P271: Use only outdoors or in a well-ventilated area.  
 P273: Avoid release into the environment.  
 P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.  
 P301/310: IF SWALLOWED: Immediately call a POISON CENTER.  
 P302/352: IF ON SKIN: Wash with plenty of water and non-abrasive soap.  
 P303/361/353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [shower].  
 P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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P305/351/338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P308/313: If exposed or concerned: Get medical attention.  
 P331: Do NOT induce vomiting.  
 P332/313: If skin irritation occurs: get medical advice.  
 P333/313: If skin irritation or rash occurs: Get medical advice.  
 P337/313: If eye irritation persists: Get medical advice.  
 P362/364: Take off contaminated clothing and wash it before reuse.  
 P391: Collect spillage.  
 P403/235: Store in a well-ventilated place. Keep cool.  
 P405: Store locked up.  
 P501: Dispose of content/container to suitable landfill in accordance with local regulations.  
**Special labelling of certain mixtures:**  
 None known.  
**Other hazards:**  
 None known.  
**Toxicity:**  
 Classification according to GHS: Cat. 3  
 Classification according to WHO: Cat. II

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Substance/Mixture:** Mixture.

**Composition:**

Chemical Name	CAS	Conc. (m/v %)	Classification EC 1272/2008
Flumetralin TC	62924-70-3	15 %	Skin Irrit. 2 (H315) Skin Sens. 1 (H317) Eye Irrit. 2 (H319) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Calcium Dodecylbenzene Sulphonate	26264-06-2	< 15 %	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 4 (H413)
Cyclohexanone	108-94-1	< 25 %	Flam. Liq. 3 (H226) Acute Tox. 4 (H332)
Solvent naphtha (petroleum), light arom	64742-95-6	Up to 100 %	Asp. Tox. 1 (H304) Muta. 1B (H340) Carc. 1B (H350)

### 4. FIRST AID MEASURES

Remove the victim from the area of exposure. Wash off remaining material with plenty of water. In the event of any complaints or symptoms, avoid further exposure and consult a doctor.  
**Inhalation:** If vapours or mists have been inhaled, move victim to fresh air and remove source of contamination if safe to do so. The patient should be kept under observation. Obtain medical attention.  
**Skin:** Remove contaminated clothing, shoes and leather goods. Wash skin gently and thoroughly with cold water and non-abrasive soap. Obtain medical attention if irritation persists.  
**Eyes:** Flush eyes with clean water for at least 15 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. Seek medical attention if irritation persists.  
**Ingestion: Do not induce vomiting.** Do not give anything by mouth to an unconscious person. **Obtain medical attention immediately.**  
**Anticipated acute effects:** Toxic if inhaled. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May be fatal if swallowed and enters airways.  
**Anticipated delayed effects:** May cause genetic defects. May cause cancer.  
**Most important symptoms/effects:** None known.  
 Advice to physician:  
 There is no specific antidote available. Treat symptomatically and supportively.

### 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media:** Extinguish fires with carbon dioxide, water, dry chemical and foam.  
**Unsuitable Extinguishing Media:** Water jet.  
**Specific hazards:** In case of fire and/or explosion do not breathe fumes.  
**Special Fire Fighting Procedures:** Remove spectators from surrounding area. Isolate the fire area and evacuate all personnel downwind of the fire. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Keep upwind. Avoid inhaling hazardous vapours and fumes from burning materials. Remove container from fire area if possible and without risk. Do not use high volume water jet, due to contamination risk. Do not scatter the burning material. Water can be used to cool unaffected containers but must be contained for later disposal. Contain fire control agents for later disposal. Avoid pollution of waterways by run-off from the site.  
**Personal protective equipment:** Wear NIOSH/MSHA approved self-contained breathing apparatus and full bunker gear.

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## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Avoid contact with eyes and skin. Ventilate area of spill or leak, especially in contained areas.

**Protective equipment:** Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.

**Emergency procedures:** Alert firefighting personnel, evacuate unprotected personnel and animals.

**Environmental Precautions:** Prevent spilled product from entering sewers, waterways or ground water. This product is classified to be toxic to aquatic organisms with long-term adverse effects in the aquatic environment. Any spillages or uncontrolled discharges into water courses should be reported immediately to the police and the Department of Water/Environmental Affairs.

**Methods and Materials for Containment:** Contain spilled product by diking area with sand, earth or silica gel.

**Methods and Materials for Clean-up:** Cover contained spill with an inert absorbent material such as sand, earth or other appropriate non-combustible material. Vacuum, scoop, or sweep up material and place the material into a clean, dry, sealable container. Label containers with the contents and dispose of according to local regulations. Do not place spilled material back in original container. Do not re-use spilled material. Collect washings and add to the drums already collected. Do not flush spilled material or washings into drains or waterways. To decontaminate the spill area, tools and equipment, wash with water and suitable detergent (i.e. organic solvent, detergent bleach or caustic). Add the solution to the drums already collected. Open burning or dumping of this material is prohibited. See section 13 for disposal considerations.

## 7. HANDLING AND STORAGE

### Handling:

**Precautions for safe handling:** May be harmful if swallowed. Avoid contact with eyes and skin. Ensure adequate ventilation during handling and use. Do not handle broken containers without protective equipment. Immediately clean up spills that occur during handling. Keep containers tightly closed when not in use. In the case of contact with the product refer to First Aid Measures – Section 4.

**General occupational hygiene:** Practice good hygiene when using this material. Wash hands before eating, drinking, chewing gum, smoking, using the toilet or applying cosmetics. Worker should shower at the end of each workday. Launder all clothing before it is re-used.

**Storage: Conditions for safe storage:** Keep out of reach of unauthorised persons, children and animals. Store in its original labelled container tightly closed, in an isolated, dry, cool and well-ventilated area. Do not store near heat, open flame, sources of ignition or hot surfaces.

Avoid cross contamination with other pesticides and fertilisers.

**Incompatible substances and mixtures:** Refer to product label.

**Packaging material:** Fluorinated plastic containers.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

### Permissible concentration:

Components	Exposure limits	Type of exposure limit	Source
Cyclohexanone	100 mg/m <sup>3</sup>	TWA	OEL-RL

### Engineering Controls:

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. Local Exhaust: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

### Personal Protective Equipment:

**Respiratory Protection:** Wear an organic cartridge respirator suitable for protection from mists/ vapours of pesticides if inhalation is likely to occur.

**Hand Protection:** Employee must wear appropriate chemically resistant gloves e.g. nitrile rubber gloves to prevent contact with this mixture.

**Eye Protection:** Wear a face shield when handling the concentrate and when applying the product. The use of safety goggles is recommended if a face shield is not used.

**Skin and Body Protection:** The use of protective (impervious) clothing e.g. coveralls is recommended to prevent skin contact with this mixture.

**Emergency eyewash:** Where there is any possibility that an employee's eyes may be exposed to this mixture; the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Orange yellow liquid.

**Odour:** Aromatic Solvent.

**pH (1% aqueous dilution):** 5.0 to 8.0.

**Melting point:** Not available.

**Freezing Point:** Not available.

**Boiling Point:** Not available.

**Flash Point:** 40°C.

**Flammability:** Flammable.

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**Upper/lower explosion limits:** Not available.  
**Vapour Pressure (mm Hg):** Not available.  
**Relative Vapour Density:** Not available.  
**Density:** 1.00 g/ml (20°C).  
**Solubility:** Soluble.  
**n-octanol/water partition coefficient:** Not available.  
**Auto-ignition temperature:** Not available.  
**Decomposition temperature:** Not available.  
**Viscosity:** Not available.

## 10. STABILITY AND REACTIVITY

**Chemical Stability:** The product is stable for 2 years at ambient temperature and pressure, under normal storage and handling conditions. Avoid storage under extreme temperatures and conditions. Store below 50°C, preferably below 30°C, and not for prolonged periods in direct sunlight.  
**Reactivity:** None known.  
**Possibility of Hazardous Reactions:** None known.  
**Conditions to Avoid:** Avoid extreme heat, flame, ignition sources and oxidizing materials.  
**Incompatible Materials:** Avoid contact with strong oxidizers. Mildly corrosive to steel and tinplate.  
**Hazardous Decomposition Products:** Will evolve toxic and irritant vapours.

## 11. TOXICOLOGICAL INFORMATION

**ACUTE TOXICITY:**  
**Based on experimental data.**  
**Oral LD<sub>50</sub> (24 h) rat** >2000 mg/kg.  
**Dermal LD<sub>50</sub> (24 h) rat** >2000 mg/kg.  
**Inhalation LC<sub>50</sub> (4 h) rat** >2.0 mg/l.  
**Skin Irritation/Corrosion:** Causes skin irritation.  
**Eye Damage/Irritation:** Causes serious eye irritation.  
**Skin Sensitization:** May cause an allergic skin reaction.  
**Respiratory Sensitization:** Not available.  
**Reproductive cell mutagenicity:** May cause genetic defects.  
**Carcinogenicity:** May cause cancer.  
**Reproductive toxicity:** Not available.  
**Specific target organ toxicity – single exposure:** Not available.  
**Specific target organ toxicity – repeated exposure:** Not available.  
**Aspiration hazard:** May be fatal if swallowed and enters airways.  
**Chronic Effects:** Not available.  
**POTENTIAL ADVERSE EFFECTS:**  
**Inhalation:** Toxic if inhaled.  
**Skin contact:** Moderate-irritation to skin. Mild to moderate skin sensitization on guinea pigs.  
**Eye contact:** Severe-irritation to eye.  
**Ingestion:** May be harmful if swallowed.

## 12. ECOLOGICAL INFORMATION

This product is toxic to aquatic life with long lasting effects.

### ECOTOXICITY DATA: Active ingredient.

<b>Fish:</b>		
LC <sub>50</sub>	Bluegill sunfish	23 µg/l
<b>Daphnia:</b>		
EC <sub>50</sub> (48 h)		>160 µg/l
<b>Algae:</b>		
EC <sub>50</sub>	<i>Selenastrum</i>	>0.85 mg/l
E <sub>b</sub> C <sub>50</sub>	<i>Lemna gibba</i>	0.15 mg/l
<b>Birds:</b>		
LD <sub>50</sub>	Bobwhite quail & Mallard ducklings	>2000 mg/kg
LC <sub>50</sub>	Mallard ducklings & Bobwhite quail	>5000 ppm
<b>Bees:</b>		
Non-toxic.	(oral)	>300 µg/bee
LD <sub>50</sub> (48 h)	(contact)	>100 µg/bee
<b>Worms:</b>		
LC <sub>50</sub>	Earthworms	>1000 mg/kg

**Plants:** Metabolism in tobacco is rapid and extensive; reduction or complete removal of substituents occurs.

### ENVIRONMENTAL EFFECTS:

**Persistence and degradability:** Strongly adsorbed, K<sub>d</sub> 42 (sand, pH 5.2, o.c. 0.3%) to 2655 (silt loam, pH 6.5, o.c. 1.4%), and slowly degraded, DT<sub>50</sub> 708 d (sandy clay loam, pH 4.8, O.C. 2.3%) to 1738 d (sand, pH 5.2, O.C. 0.3%), in soil at 20±2°C and a moisture content of 40% MWHC. Flumetralin and its metabolites have little or no tendency to leach. Strongly adsorbed and therefore immobile in soil; degradation is by photolysis. Stable to hydrolysis at pH 5,7 and 9. Soil photolysis in the topmost soil layers plays a significant role in dissipation of flumetralin from soil surfaces.

**Bio-accumulative Potential:** Not determined.

**Mobility in soil:** Not determined.

**Other adverse effects:** Not determined.

## 13. DISPOSAL CONSIDERATIONS

**Waste:** Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or re-processed. Never pour untreated waste or surplus product 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. The product may be taken to a registered waste disposal site or incineration plant. Where possible, recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.

**Container:** Emptied containers retain vapour and product residues. Do not re-use the empty container for any other purpose. Triple rinse empty containers by inverting the

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empty container over the spray or mixing tank and allow draining 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 one third of that of the container. Add the rinsing's to the contents of the spray tank before recycling or destroying the container in the prescribed manner. Destroy the container by perforating and flattening and dispose of through an approved waste dump site, incineration plant or recycling company. Observe all labelled safeguards until container is destroyed.

**H302:** Harmful if swallowed.  
**H318:** Causes serious eye damage.  
**H332:** Harmful if inhaled.  
**H413:** May cause long lasting harmful effects to aquatic life.

**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 and 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.

## 14. TRANSPORT INFORMATION

**UN Number:** 1993  
**Road Transport ADR/IRD:**  
 Class: 3.3  
 Packaging group: III  
 UN Proper Shipping Name: **Flammable Liquid N.O.S,**  
 (Flumetralin 150 g/l)

**Maritime Transport IMDG/IMO:**  
 Class: 3.3  
 Packaging group: III  
 UN Proper Shipping Name: **Flammable Liquid N.O.S,**  
 (Flumetralin 150 g/l)

**Marine Pollutant (Y/N):** Yes, Considered a marine pollutant.

**Air transport IATA/ICAO:**  
 Class: 3.3  
 Packaging group: III  
 UN Proper Shipping Name: **Flammable Liquid N.O.S,**  
 (Flumetralin 150 g/l)

**Special/Environmental Precautions:** None known.  
**Transport in bulk** (according to MARPOL 73/78, Annex II and the IBC code): Not available.

## END OF DOCUMENT

**Compiled:** May 2017  
**Reviewed:** March 2019  
**Revision no.:** (2)  
**Next revision date:** March 2024

For detailed information on revisions, contact the Registration holder.

## 15. REGULATORY INFORMATION

**Safety, health and environmental regulations/legislation for the mixture:**  
 OSHA 1993 Regulations for Hazardous Chemical Substances.

**Relevant information regarding restrictions:** None.

**EU regulation:** Regulation EC1272/2008 (EU-GHS/CLP)

**Other national regulations:** None.

**Chemical Safety Assessment carried out?** No

## 16. OTHER INFORMATION

**Packaging:** Packed in fluorinated 1, 2, 5, 10, 20, 25 and 50 litres plastic containers and labelled according to South African regulations and guidelines.

**Additional H-statement (s) (formulants)**