

EXILIS®

SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

Product Name: EXILIS®
Other identifier: 6-benzylaminopurine (cytokinin)
 21 SL
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) 396 2233
Fax: (011) 396 4666
Website: www.villacrop.co.za

Emergency telephone numbers:
24 Hr Transport / Spill emergency no:
 (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

2. HAZARD IDENTIFICATION

The most important adverse effects:
Physicochemical effects: None known
Human health effects: Reactions are not likely to occur unless the absorbed dose is extraordinary.
Label elements: No pictograms.
Signal word: No signal word.
Hazard statements: No hazard statements.
Precautionary statements: No precautionary statements.
Other hazards:
 To avoid risks to human health and the environment, comply with the instructions for use (EUH401).
Toxicity:
 Classification according to GHS: Unclassified

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture
Composition:

Chemical name	CAS	Conc. (m/v)	Classification EC 1272/2008
N6-Benzyladanine (BAP)	1214-39-7	1.92 %	Acute Tox. 4 (H302) Repr. Tox. 2 (H361d) Aquatic Acute 1 (H400)

Citric acid	77-92-9	< 3 %	Eye Irrit. 2 (H319) STOT SE 3 (H335)
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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.
Inhalation: Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if irritation persists.
Skin: Remove contaminated clothing and wash before re-using. Flush skin with water. Seek medical attention if skin irritation persists.
Eyes: Flush eyes with clean water for 15 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses and continue rinsing for another 5 minutes. Seek medical attention if irritation persists.
Ingestion: Rinse mouth thoroughly with water. Seek medical advice if you feel unwell.
Anticipated acute effects: None known.
Anticipated delayed effects: None known.
Most important symptoms / effects: None known.
Advice to physician:
 Treat symptomatically and supportively. No specific antidote known.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Use carbon dioxide or dry chemical for small fires and water fog or foam for large fires.
Unsuitable Extinguishing Media: High volume water jet. Use a water jet only to cool heated containers.
Specific hazards: Large volumes of contaminated water may penetrate soil and contaminate groundwater. Seek expert advice for removal and disposal of all contaminated materials and wastes.
Special fire-fighting procedures: Product is not flammable. 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. Remain upwind of fire. Avoid inhaling hazardous vapors 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.
Personal protective equipment: Wear NIOSH / MSHA approved self-contained breathing apparatus and full protective gear.

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with skin and eyes. Do not inhale fumes. 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: Do not allow to enter public sewers and watercourses. Contain spillage by any means possible. 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.

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

Methods and Materials for Clean-up: Cover contained spill with an inert absorbent material such as sand, vermiculite, earth or other appropriate 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. See section 13 for disposal considerations.

7. HANDLING AND STORAGE

Handling:

Precautions for safe handling: Avoid contact with eyes, prolonged contact with skin, and inhalation of fumes. Use with adequate ventilation. Remove clothing if the product gets inside. Then wash skin thoroughly using a non-abrasive soap and put on clean clothing. 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.

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 under lock and key and out of reach of unauthorized persons, children and animals. Store in its original, labelled container, tightly closed in an isolated, dry, cool and well-ventilated area. Avoid excess heat. Not to be stored next to foodstuffs,

feed and water supplies. Avoid cross contamination with other pesticides and fertilizers.

Incompatible substances and mixtures: Refer to product label.

Packaging material: Fluorinated plastic containers.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible concentration: No occupational exposure limits have been determined for the significant ingredients in this product.

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 OELs 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: No respiratory protection is needed if ventilation/extraction is adequate. If not, wear approved dust mask.

Hand Protection: Wear rubber gloves when handling the product.

Eye Protection: The use of chemical safety goggles is recommended to prevent against eye contact.

Skin and Body Protection: Wear suitable protective clothing, boots and equipment to prevent repeated or prolonged skin contact with this substance. Do not wear leather clothing.

Emergency eyewash: 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. Irrigate eyes with running water for at least 15 minutes.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: A colorless liquid.

Odour: Sweet-smelling.

Odour threshold: Not available.

pH (1% aqueous dilution): 4 – 5.

Melting point: Not available.

Freezing point: Not available.

Boiling point: 180 °C (solvent).

Flash point: 105 °C.

Flammability: Non-flammable.

Upper / lower explosion limits: Not available.

Vapour Pressure (mm Hg): Not available.

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Relative Vapour Density: Not available.
Density / Relative density: 1.04 g/cm³.
Solubility: Miscible with water.
n-octanol / water partition coefficient: -0.92 log P_{ow} (solvent), 2.16 log P_{ow} (active ingredient).
Auto-ignition temperature: Not available.
Decomposition temperature: Will decompose only at very high temperatures to form carbon, chlorine, nitrogen and sulphur compounds.
Viscosity: 60 mPa.s @ 20 °C.

10. STABILITY AND REACTIVITY

Chemical stability: The product is stable for two years at ambient temperature (18 – 22 °C) 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: No hazardous reactions known if used for its intended purpose.
Conditions to avoid: Keep away from heat and sources of ignition.
Incompatible materials: Incompatible with strong oxidizing substances.
Hazardous decomposition products: Decomposition products may include toxic and irritant fumes.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:
Oral LD₅₀ (rat): >2000 mg/kg - unclassified.
Dermal LD₅₀ (rat): >2000 mg/kg - unclassified.
Inhalation LC₅₀ (4hr) (rat): 5.00 mg/l - unclassified.
Skin Irritation / Corrosion (rabbit): Not classified.
Eye Damage / Corrosion (rabbit): Not classified.
Skin Sensitization (guinea pig): Non sensitizing.
Respiratory Sensitization: Not classified.
Reproductive cell mutagenicity: Not classified.
Carcinogenicity: Not classified.
Reproductive toxicity: Not classified.
Specific target organ toxicity – single exposure: Not classified.
Specific target organ toxicity – repeated exposure: Not classified.
Aspiration hazard: Not classified.
Chronic Effects: Not classified.

POTENTIAL ADVERSE EFFECTS:
 Reactions are not likely to occur unless the absorbed dose is extraordinary.

12. ECOLOGICAL INFORMATION

ECOTOXICITY DATA:

Active ingredient: N6-Benzyladanine (BAP)

Birds:		
LD ₅₀ acute oral (14d)	Bobwhite quail	1560 mg/kg
LC ₅₀ dietary	Bobwhite quail	> 5620 mg/kg
Fish:		
LC ₅₀ (96h)	Carp	38.5 mg/l
	Zebrafish	32-56 mg/l
Daphnia:		
EC ₅₀ (48h)		32-56 mg/l
Algae:		
E _b C ₅₀ (72h)	<i>Selenastrum capricornutum</i>	36 mg/l
E _r C ₅₀		45.1 mg/l
Bees:		
LD ₅₀ oral		> 58.7 µg/bee
LD ₅₀ contact		> 100 µg/bee
Worms:		
LC ₅₀	<i>Eisenia fetida</i>	> 500 mg/kg soil

Formulated product: Exilis

Fish:	
LC ₅₀ (96hr)	> 100 mg/l
Daphnia:	
EC ₅₀ (48hr)	> 100 mg/l
Algae:	
EC ₅₀ (72hr)	> 100 mg/l
Lemna:	
EC ₅₀ (7d)	> 100 mg/l

ENVIRONMENTAL EFFECTS:

Plants: No information available.
Persistence and degradability: Readily biodegradable. Half life under all conditions is 120 hours at 20 °C.
Bio-accumulative potential: No information available.
Mobility in soil: No information available.
Other adverse effects: No information available.

13. DISPOSAL CONSIDERATION

Waste: Open dumping or burning of this pesticide is prohibited. 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. Prevent contamination of food, feedstuffs, drinking water and eating utensils. Comply with local legislation applying to waste disposal. The product may be taken to a registered waste disposal site or incineration plant.

Container: Emptied containers retain product residues. Do not re-use the empty container for any other purpose. Invert the empty container over the spray or mixing tank and drain for at least 30 seconds after the flow has slowed

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down to dripping. Thereafter **RINSE THE EMPTY CONTAINER THREE TIMES** in succession with one quarter of the container volume fresh water and decant the rinsate into the spray or mixing tank. Puncture the triple rinsed container and dispose of via an approved collector or recycler (www.croplife.co.za). Do not bury, burn or donate the container to any other parties that may use it as a container for food or beverages. Observe all labelled safeguards until container is destroyed.

14. TRANSPORT INFORMATION

Not regulated.

Not classed i.e., considered non-hazardous material according to UN Orange Book and international transport codes e.g., RID (rail) and IMDG (sea).

Special / Environmental Precautions: Wedge drums tightly to avoid movement.

Transport in bulk: Refer to MARPOL 73/78, Annex II and the IBC code.

15. REGULATORY INFORMATION

Safety, health and environmental regulations / legislation for the mixture:

OHSA 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 1, 5, 10, 20 and 25 liters fluorinated plastic container labeled according to South African regulations and guidelines.

Other hazard statements, abbreviations and explanations:

H302: Harmful if swallowed.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

H361d: Suspected of damaging fertility or the unborn child.

H400: Very toxic to aquatic life.

IATA: International Air Transport Association.

IBC: International Bulk Chemical.

ICAO: International Civil Aviation Organization.

IMDG: International Maritime Dangerous Goods

IMO: International Maritime Organization.

LD₅₀ value: The median lethal dose or the amount of a toxic agent that is sufficient to kill 50 percent of a population within a certain period of time.

OEL/RL: Occupational exposure limit-recommended limit.

TWA: Time-weighted average – The average exposure over a specified period, usually a nominal eight hours.

ST/STEL: Short-term exposure limits.

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 neither 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.

END OF DOCUMENT

Compiled: April 2006

Reviewed: July 2022

Revision no.: (6)

Next revision date: July 2027

For detailed information on revisions, contact the Registration holder.