

SAFETY DATA SHEET

AVISPRAY

SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING

1.1 Identification of the product/preparation:

Product Name: AVISPRAY
Product Description: Aerosol Insecticide
Product Type: Insecticide
Registration Number: L2613
Active Ingredients: Pyrethrins and Piperonyl Butoxide

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

Relevant uses: A space aerosol insecticide for the control of flies, mosquitoes and moths and a direct contact spray for the control of fleas, fish moths, cockroaches and bedbugs. The product can also be used as a flushing agent to identify crawling insect harbourage and to estimate the levels of infestation.

The product should not be used for any other purpose or in any other manner contrary to the information supplied on the product label.

1.3 Details of the supplier of the safety data sheet

Avima (Pty) Ltd
Co. Reg. Nr.: 1961/001744/07
18 Aschenberg Street
Chamdor, Krugersdorp
+27 11 769 1300

1.4 Emergency telephone numbers

Tygerberg Poison Information Centre:
(24 Hour Poisoning Emergency Helpline)
+27 (0) 861 555 777

Griffon Poison Information Centre
(24 Hour Poisoning Emergency Helpline)
+27(0)82 446 8946

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the mixture:

The product is classified as hazardous according to the criteria in South Africa – GHS classification and labelling of chemicals and the Regulations for Hazardous Chemical Agents 2021.

Hazard Class	Category	Hazard Statement Number
Flammable Liquids	3	H226
Skin Sensitization	1	H317

2.2 Label elements

South Africa, GHS Classification and Labelling of Chemicals – SANS10234, and the Regulations for Hazardous Chemical Agents – 2021.

Pictograms:



Signal Word:

Warning

Hazard Statements:

Statement Number

H226
H317

Hazard Statement

Flammable liquid and vapour.
May cause an allergic skin reaction.

Precautionary Statements:

General –

Statement Number

P101

Precautionary Statement

If medical advice is needed, have product container or label at hand.

P102

Keep out of reach of children.

P103

Read carefully and follow all instructions.

Prevention –

Statement Number

P210

Precautionary Statement

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233

Keep container tightly closed.

P240

Ground and bond container and receiving equipment.

P241

Use explosion-proof electrical, ventilating and lighting equipment.

P242

Use non-sparking tools.

P243

Take action to prevent static discharges.

P261

Avoid breathing dust/fume/gas/mist/vapours/spray.

P272

Contaminated work clothing should not be allowed out of the workplace.

P280

Wear protective gloves/protective clothing/eye protection/ face protection/hearing protection.

**Response –
Statement Number**
P321

Precautionary Statement

Specific treatment: see FIRST AID TREATMENT on this label.

P302+P352

IF ON SKIN: Wash with plenty of water.

P333+P317

If skin irritation or rash occurs: Get medical help.

P362+P364

Take off contaminated clothing and wash it before reuse.

P370+P378

In case of fire: Use dry chemical, CO₂, foam and water spray to extinguish.

P303+P361+P353

IF ON SKIN: Take off immediately all contaminated clothing. Rinse affected areas with water.

**Storage –
Statement Number**
P430+P235

Precautionary Statement

Store in a well-ventilated place. Keep cool.

**Disposal –
Statement Number**
P501

Precautionary Statement

Dispose of contents or container to a licensed waste facility and in accordance with local and national regulatory requirements.

2.3 Other Hazards:

None known for the product.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Mixture:

IUPAC/Chemical Name-Active ingredient:

Not applicable – Plant extract from Chrysanthemum cinerariaefolium, containing all 6 isomers of pyrethroid

CAS Number:

8003-34-7

Molecular Formula:

Unspecified – mixtures of isomers

Chemical Family:

Esters

Ingredients with Hazard Concerns (GHS):

According to UN GHS criteria.

Hazardous Component	CAS Number	Weight - %	GHS Classification
Pyrethrum	8003-34-7	0.3%	Acute Toxicity Oral, Category 4. Acute Toxicity Dermal, Category 4. Acute Toxicity Inhalation, Category 4. Aquatic Toxicity Acute, Category 1.

			Aquatic Toxicity Chronic, Category 1. M Factors Acute & Chronic = 100.
Piperonyl Butoxide	51-03-6	1.8%	Aquatic Toxicity Acute, Category 1. Aquatic Toxicity Chronic, Category 1. M Factors Acute & Chronic = 1.
Lemon perfume	84929-31-7	>0.2%	Flammable Liquids, Category 3. Aspiration Hazard, Category 1. Skin Corrosion/Irritation, Category 2. Skin Sensitization, Category 1. Aquatic Toxicity Chronic, Category 2.
C12-C13 paraffins 1. Dodecane 2. Tridecane	112-40-3 629-50-5	<11%	Aspiration Hazard, Category 1. Aspiration Hazard, Category 1.
n-Butane	106-97-8	>85%	Flammable Gas, Category 1. Gases Under Pressure. Liquefied Gas.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

General:	If exposed, immediately remove all contaminated clothing and move the affected person out of the contamination area. Keep the person warm, calm and covered up. First aid personnel should pay attention to their own safety. In case of accident or if unwell, seek medical advice promptly. Provide the product SDS and label to medical personnel for treatment.
Eye contact:	Rinse/flush the eyes gently with water from the eye wash fountain for several minutes (at least 15 minutes), while holding the eyelids apart. Ensure complete irrigation of the eye by keeping eyelids apart and away from the eye and moving the eyelids. If present, remove contact lenses of easy to do so. Continue rinsing without rubbing the eyes. Obtain medical attention if irritation occurs and persists.
Skin contact:	Wash off thoroughly with plenty of water for 15 to 20 minutes under the safety shower. Obtain medical attention if irritation occurs and persists.
Inhalation:	Move the patient to fresh air. If breathing is difficult have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Do not use mouth-to-mouth resuscitation of victim ingested or inhaled the product; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Obtain medical attention if concerned.
Ingestion:	Obtain immediate medical attention – call a poison control centre or medical practitioner for treatment advice. Do NOT induce vomiting. Rinse the mouth with water. Never give anything by mouth to an unconscious or convulsing person. If vomiting occurs, lean patient forward or place on the left side (head down position, if possible) to maintain an open airway and prevent aspiration.

4.2 Most important symptoms and effects, both acute and delayed:

Ingestion:	None known for the product.
Inhalation:	May cause drowsiness or dizziness and respiratory irritation (cough, sneezing, headache, nose and throat pain).
Skin Contact:	Direct contact with the product could cause irritation and may result in an allergic skin reaction. Exposure to the aerosol spray resulting from a release under pressure may cause skin frostbite caused by the rapid temperature decrease.

4.3 Indication of any immediate medical attention and special treatment needed:

Treatment:	Antihistamines are effective in controlling most allergic reactions. Treat symptomatically and supportively.
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SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:	<u>Suitable:</u> Carbon dioxide, foam or dry chemical powder. <u>Unsuitable:</u> Do not use high volume water jets.
5.2 Special protective equipment and precautionary measure for fire-fighters:	In the event of fire and or explosion do not breathe fumes or vapours. Wear self-contained breathing apparatus and protective suit. Remove all sources of ignition. Apply cold water in order to cool containers exposed to danger.
5.3 Specific hazards arising from the product:	Flammable aerosol. Do not breathe fumes. For fires in enclosed areas, fire fighters must use self-contained breathing apparatus. Fight fire from a safe distance, with adequate cover. Act in accordance with the site's Internal Emergency Plan. Contain the spread of the firefighting media. Do not allow run-off from firefighting to enter drains or water courses. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local and national regulations.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:	Avoid contact with spilled product or contaminated surfaces. Contain spills if it can be done without risk and clean-up immediately. Remove all ignition sources. Ventilate the area of the spill or leak, especially when in confined areas. Do not breathe in fumes/vapours/spray mist and avoid contact with eyes, skin and clothes. Evacuate personnel to a safe area when necessary. Beware of vapours accumulating in low areas to form explosive concentrations.
6.2 Environmental precautions:	Prevent entry into waterways, sewers, drains, basements or confined areas. Prevent contact with spoil and entry to sewers, drains and water courses in case of accidental spillage as the product is toxic to

aquatic species. Do not allow the spilt product to spread to other areas – keep the spilt material contained and isolated.

Report spills and releases and required to appropriate authorities if the spilt product has caused environmental pollution (sewers, water ways, soil or air).

6.3 Methods for cleaning up: ***For small spills,*** soak up with damp non-combustible absorbent material. Sweep together and place into a labelled waste container with a shovel (using spark-resistant tools). Cover for subsequent disposal. Dispose of collected spilt material as hazardous waste. Clean the contaminated surface with water to remove any residues of the spilt product. Keep the wash water out of drains, sewers and waterways.

For large spills, do not wash away into sewers. Contain/dyke or cover to prevent dispersal using absorbent socks, pillows or pads supplied in a spilt kit. Collect the split product and place it into suitable labelled containers for proper disposal as hazardous waste.

Reference to other sections: See Section 1 for emergency contact information.
See Section 8 for exposure controls and personal protection.
See Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling: Read the label before use. Wear protective clothing and equipment during handling as described in Section 8 of this SDS. Follow normal hygiene practices. If clothing gets contaminated with the product, change to clean clothing promptly. Do not take contaminated work clothing home as this could contaminate family members. Do not eat or drink during use. Wash the hands, face, and arms thoroughly after handling with soap. Keep containers closed when not in use. Do not permit smoking in use or storage areas. In industrial work areas, use explosion-proof equipment and ensure that all transfer equipment is grounded and bonded. Take precautionary measures against static discharges. Locate emergency showers and eye-rinsing facility near the work/handling area. Maintain good normal industrial hygiene and housekeeping practices in areas where the product is used/handled.

7.2 Conditions for safe storage, including any incompatibilities: The entrance to storage facilities should be granted only to appropriately trained personnel. Store containers upright and away from potential ignition sources. Always store locked up and keep containers tightly closed when not in use. The formulation is stable if stored well ventilated, out of direct sunlight, cool and free of moisture and high humidity. Keep out of reach of children, uninformed persons, and animals. Protect containers from physical damage. Do not contaminate water, food, or feed by storage or disposal. Store away from incompatible materials like oxidizing agents and acids.

It is recommended to have appropriate spill control kits equipped with absorbent material near storage areas (see Section 6). Store in accordance with national and local regulations.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Components with workplace control parameters – national occupational exposure limits:

The product, as supplied, contains pyrethrum and n-butane for which occupational exposure limits have been established by the South African Department of Employment and Labour:

Component	Type	Control Parameter	Update	Basis
Pyrethrum	OEL - eight hour TWA	10 mg/m ³	2021	South African RELs*
n-Butane	OEL - STEL/C	2000 ppm	2021	South African RELs*

*REL:

Recommended Exposure Limit.

OEL-eight hour TWA:

Occupational Exposure Limit – Time Weighted Average. Calculated over an eight-hour working day, for a five-day working week.

OEL-STEL/C:

Occupational Exposure Limit – short Term Exposure Limit/Ceiling Limit. Peak airborne concentration determined over the shortest analytically practicable period of time, which does not exceed 15 minutes.

8.2 Appropriate engineering controls:

Use explosion-proof electrical/ventilating/lighting/equipment. Use with local exhaust ventilation to maintain airborne concentrations and exposure below occupational exposure limits.

8.3 Personal protective equipment:

Inhalation protection:



Respiratory protection selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. In case of vapour formation in industrial operations, workers must use an approved respirator (half/full face mask) with an organic vapour cartridge/canister. Use only in well-ventilated areas, in case of insufficient ventilation. Respirator selection and use should be based on contaminant type, form, and concentration. Always follow the respirator's manufacturer's regarding wearing and maintenance. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

Skin and hand protection:



Select skin and hand protection based on the task being performed and the risks involved with the task. In industrial operations - wear antistatic boots. Elbow length impervious chemical resistant gloves recommended for hand protection (e.g., butyl rubber, nitrile rubber, etc.). Consider the glove penetration time - information on glove penetration time is available from the manufacturer of the glove.

The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream). Impervious coveralls, apron, shoes, and socks as required to prevent skin contact and contamination of personal clothing. Overalls must be buttoned to the neck and sleeves worn over the gloves.

Eye/face protection:



Safety eyewear compliant with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, or vapour. Safety glasses together with a face shield are recommended if a full-face respirator is not used.

General safety and hygiene measures:

The measures appropriate for a particular worksite depend on how the product is used and on the extent of exposure. Ensure that all control systems are properly designed and maintained. Handle the product in accordance with good industrial hygiene and safety practice. An eye wash fountain and safety shower should be available and easily accessible. Keep the product away from food, drink, and animal feeding stuffs. Wash the hands and/or face before breaks, eating, smoking, or using the lavatory and at the end of the shift/working period.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance/physical state:	Clear, yellowish liquid.
Odour:	Characteristic
Colour:	Yellowish
Delivery rate:	0.3 g/second
Flammability:	Flammable – explosion hazard in case of fire
Flash point (°C):	No data available for the product
Auto ignition temperature (°C):	Not available
Decomposition temperature (°C):	Not available

SECTION 10: STABILITY AND REACTIVITY

- 10.1 Reactivity:** The product is not reactive under normal ambient and anticipated storage and handling conditions of temperature and pressure.
- 10.2 Chemical stability:** The product is volatile. Hazardous polymerization will not occur. Stable under normal ambient conditions of use, storage, and transport. Heating of containers used for packaging could cause pressure rise, severe risk of bursting and subsequent explosion.
- 10.3 Possibility of hazardous reactions:** None known under conditions of normal use.

10.4 Conditions to avoid: Extreme temperatures (>50°C), sources of heat or storage without ventilation. Sparks open flames, and build-up of static electricity.

10.5 Incompatible materials: Strong oxidizers and acids.

10.6 Hazardous decomposition products: Combustion will produce oxides of carbon (CO and CO₂).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on likely routes of exposure:

The product may be absorbed into the body by inhalation or by ingestion. The product may come into contact with the skin or eyes.

11.2 Information on toxicological effects:

No experimental toxicological data are available for the product. Assessment of toxicological effects are based on the ingredients. The product is not classified for Acute Toxicity Oral, Dermal or Inhalation.

Product/Ingredient Name	Dose Acute	Species	Test Result
AviSpray	> 2 000 mg/kg	Rat	ATE _(MIX) Oral
Pyrethrum	200 mg/kg	Rat	LD ₅₀ Oral
AviSpray	> 5 000 mg/kg	Rat	ATE _(MIX) Dermal
Pyrethrum	1350 mg/kg	Rat	LD ₅₀ Dermal
AviSpray	> 20 mg/L	Rat	ATE _(MIX) Inhalation (Vapours)
Pyrethrum	2.5 mg/L	Rat (Female)	LC ₅₀ Inhalation (Vapours)

Corrosion/Irritation –Dermal/Skin:

Assessment of corrosion/irritation effects on skin:

Based on available data, the classification criteria are not met.

Damage/Irritation – Eye:

Assessment of corrosion/irritation effects on eye:

Based on available data, the classification criteria are not met.

Respiratory/Skin Sensitization:

Assessment of sensitization:

Based on available data, the classification criteria are met for skin sensitization.

Germ cell mutagenicity:

Assessment of mutagenicity:

Based on available data, the classification criteria are not met.

Carcinogenicity:

Assessment of carcinogenicity:

Based on available data, the classification criteria are not met.

Reproductive toxicity:

Assessment of reproduction toxicity:

Based on available data, the classification criteria are not met.

Developmental toxicity:

Assessment of teratogenicity:

Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure):

Assessment of STOT (single):

Based on available data, the classification criteria are not met.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure):

Assessment of repeated dose toxicity:

Based on available data, the classification criteria are not met.

Aspiration hazard:

Assessment of repeated dose toxicity:

Based on available data, the classification criteria are not met.

Symptoms related to the physical, chemical, and toxicological characteristics:

See Section 4 of the SDS.

Delayed and immediate effects as well as chronic effects from short and long-term exposure:

No additional information available for the product.

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity / Toxicity:

Pyrethrum Technical (Pesticide manual)

Toxicity to fish: LC₅₀ 39 mg/l, Coho salmon

Exposure time: 96 h

Toxicity to aquatic invertebrates:

LC₅₀ (*Daphnia*): 12 µg/l

12.2 Other Environmental and Adverse Effects:

Environmental Effect	Environmental effect applicable to the ingredient	Description
Persistence and Degradability	Pyrethrum	The pyrethrin class of insecticides is degraded readily by ambient microorganisms; therefore, pyrethrum is also expected to biodegrade readily. If released into water, pyrethrum is expected to adsorb to suspended

		solids and sediment based upon the estimated K_{oc} .
Bioaccumulative Potential	Pyrethrum	An estimated BCF of 290 suggests the potential for bioconcentration in aquatic organisms is high.
Mobility in Soil	Pyrethrum	Based on a classification scheme, an estimated K_{oc} value of 10 000, determined from a structure estimation method, indicates that pyrethrum is expected to strongly absorb to soil surfaces and are generally considered to be immobile in soil.
Other Adverse Effects	Pyrethrum	Honeybee studies suggest that pyrethrins are highly toxic to non-target beneficial insects.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste handling and disposal:	Avoid and minimize the generation of waste. Dispose product related waste in accordance with all local regulations and prevent the contamination of water, food, or feed by storage or disposal of the waste. Do not use empty containers for any other purpose. The product or empty containers must not be disposed of as part of general waste. Special help is available for the disposal of agricultural chemicals. The product label will supply general advice regarding disposal of small quantities.
13.2 General container handling:	Non-refillable container - do not reuse or refill the container. Ensure that the aerosol can is empty. Avoid crushing, piercing, or flattening the aerosol can - pressurized cans, and may explode or cause damage if modified.
13.3 Additional special precautions	The product and its container must always be disposed of in a safe manner. DO NOT burn the container.

SECTION 14: TRANSPORT INFORMATION

	Land Transport (ADR/RID)	Inland Waterway (ADN/ADNR)	Sea Transport (IMDG)	Air Transport (ICAO-TI/IATA-DGR)
UN Number	1950	1950	1950	1950
UN Proper Shipping Name	AEROSOLS, Flammable	AEROSOLS, Flammable	AEROSOLS, Flammable	AEROSOLS, Flammable
Transport Hazard Class	3	3	3	3
Transport Hazard Class Pictograms				

Transport Supplementary Hazard Class	9	9	9	9
Transport Supplementary Hazard Class Pictogram				
Packaging Group	-	-	-	-
Environmental Hazard	YES	YES	YES	YES

SECTION 15: REGULATORY INFORMATION

15.1 South Africa Legislation:

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). Fertilizer, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No. 36 of 1947) Regulations Relating to Agricultural Remedy. 25 August 2023.

Hazardous Substances Act, 1973 (Act No.15 of 1973).

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 10228:2021 - The identification and classification of dangerous goods for transport by road and rail modes. National Environmental Management: Waste Act 59 of 2008.

SECTION 16: OTHER INFORMATION

16.1 Text of the hazard statements mentioned in Section 3

Hazard Class & Category	Hazard Statement Number	Hazard Statement
Flammable Liquids, Category 3.	H226	Flammable liquid and vapour.
Acute Toxicity Oral, Category 4.	H302	Harmful if swallowed.
Aspiration Hazard, Category 1.	H304	May be fatal if swallowed and enters airways.
Acute Toxicity Dermal, Category 4.	H312	Harmful in contact with skin.
Skin Corrosion / Irritation, Category 2.	H315	Causes skin irritation.
Skin Sensitization, Category 1.	H317	May cause an allergic skin reaction.
Acute Toxicity Inhalation, Category 4.	H332	Harmful if inhaled.
Aquatic Toxicity Acute, Category 1.	H400	Very toxic to aquatic life.
Aquatic Toxicity Chronic, Category 1.	H410	Very toxic to aquatic life with long lasting effects.
Aquatic Toxicity Chronic, Category 2.	H411	Toxic to aquatic life with long lasting effects.

16.2 Key to Abbreviations

AND	European Provisions concerning the International Carriage of Dangerous Goods by inland Waterways
ADR	The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
COD	Chemical Oxygen Demand
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
IATA	International Air Transport Association
ICAO	International Civil Aviation Organisation
IMDG	International Maritime Dangerous Goods
LogPow	Logarithm of the octanol/water partition coefficient
LD ₅₀	Lethal Dose 50
LC ₅₀	Lethal Concentration 50
RID	The Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
UN	United Nations

16.3 Disclaimer

The information on this Safety Data 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.

END OF SAFETY DATA SHEET