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PRODUCT: DELTANEX 15 EC

SAFETY DATA SHEET DELTANEX 15 EC

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

- 1.1 Identification of the product/preparation:**
Product Name: DELTANEX 15 EC
Product Description: An emulsifiable concentrate contact spray insecticide.
Product Type: Insecticide
Registration Number: L8801
Active Ingredients: Deltamethrin and Piperonyl Butoxide (BPO)
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Insecticide that provides rapid flush-out and knockdown in the control of crawling insects in domestic and industrial areas.
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 number:**
Griffon Poison Information Centre
(24 Hour Poisoning Emergency Helpline)
+27(0)82 446 8946

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance/mixture:

This product is classified as hazardous according to the criteria in South Africa: GHS classification and labelling of chemicals – SANS10234, and the Regulations for Hazardous Chemical Agents - 2021.

Hazard Class	Category	Hazard Statement Number
Flammable Liquids	3	H226
Aspiration Hazard	1	H304
Serious Eye Damage/Irritation	2	H319
STOT SE	3	H335 & H336
Aquatic Toxicity Acute	1	H400
Aquatic Toxicity Chronic	1	H410

2.2. Label elements

Pictograms:



Signal Word:

Danger.

Hazard Statements:

Statement Number	Hazard Statement
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways (aspiration hazard).
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

General -

Statement Number	Precautionary Statement
P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Obtain, read, and follow all safety instructions before use.

Prevention-

Statement Number	Precautionary Statement
P210	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 fumes, mist, vapours, or spray.
P271	Use only outdoors or with adequate ventilation.
P273	Avoid release to the environment.
P280	Wear protective clothing, gloves, eye, and face protection.
P264 + P265	Wash hands and face thoroughly after handling. Do not touch eyes.

Response-

Statement Number	Precautionary Statement
P319	Get medical help if you feel unwell.
P331	Do not induce vomiting.
P391	Collect spillage.
P301 + P316	IF SWALLOWED: Get emergency medical help immediately.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P337 + P317 If irritation persists: Get medical help.
P370 + P378 In case of fire: Use the equipment specified in Section 5 of this SDS.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**Storage-
Statement Number**

P405
P403 + P233

Precautionary Statement

Store locked up.
Store in a well-ventilated place. Keep container tightly closed.

**Disposal-
Statement Number**

P501

Precautionary Statement

Dispose of contents/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 ingredients:

Deltamethrin: [(S)-cyano-(3-phenoxyphenyl)methyl] (1R,3R)-3-(2,2-dibromoethenyl)-2,2-dimethylcyclopropane-1-carboxylate
Piperonyl Butoxide: 5-[2-(2-butoxyethoxy)ethoxymethyl]-6-propyl-1,3-benzodioxole

CAS Numbers:

52918-63-5 and 51-03-6

Molecular Formulas:

C₂₂H₁₉Br₂NO₃ and C₁₉H₃₀O₅

Chemical Family:

Pyrethroid ester and Benzodioxoles

Formulation:

Emulsifiable concentrate

Hazardous Component	CAS number	Weight - %	GHS Classification
Light aromatic petroleum solvent	64742-95-6	>80%	Aspiration Hazard, Category 1. STOT SE, Category 3. Flammable Liquid, Category 3. Aquatic Toxicity Acute, Category 2. Aquatic Toxicity Chronic, Category 2.
Piperonyl butoxide	51-03-6	<10%	STOT SE, Category 3. Respiratory Irritation. Aquatic Toxicity Acute, Category 1. Aquatic Toxicity Chronic, Category 1. M Factors = 1.

Deltamethrin	52918-63-5	<5%	Acute Toxicity Oral, Category 3. Acute Toxicity Inhalation, Category 3. Aquatic Toxicity Acute, Category 1. Aquatic Toxicity Chronic, Category 1. M Factors = 1 000 000
Benzenesulfonic acid, C10-13-alkyl deriys, calcium salts	1335202-81-7	<5%	Skin Corrosion/Irritation, Category 2. Serious Eye Damage/Irritation, Category 1. Aquatic Toxicity Chronic, Category 3.
Butanol-n	71-36-3	<1%	Flammable Liquids, Category 3. Acute Toxicity Oral, Category 4. Skin Corrosion/Irritation, Category 2. Serious Eye Damage/Irritation, Category 1. STOT SE, Category 3. Narcotics Effect. STOT SE, Category 3. Respiratory Irritation.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

- General:** Call a physician or poison control centre for advice if ingested. 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 always pay attention to their own safety. Provide this SDS 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 if easy to do so. Continue rinsing without rubbing the eyes. Obtain medical attention if irritation develops 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 if 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 respiratory irritation occurs.
- Skin contact:** Wash off thoroughly with plenty of water for 15 to 20 minutes under the safety shower. Obtain medical attention if irritation develops and persists.
- Ingestion:** 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:	Could be harmful if ingested.
Inhalation:	Causes respiratory irritation and central nervous system depression resulting in coughing, sore throat, headache, drowsiness, and dizziness.
Skin Contact:	May be absorbed by the skin and could cause irritation resulting in redness and pain.
Eye contact:	Could cause mild eye irritation in sensitive individuals causing redness and watering.
Aspiration hazard:	Deltanex 15 EC - Symptoms of chemical pneumonitis include sudden shortness of breath and a cough that develops within minutes or hours. Other symptoms may include fever and pink frothy sputum. In less severe cases, the symptoms of aspiration pneumonia may occur a day or two after inhalation of the product.

4.2 Indication of any immediate medical attention and special treatment needed

Treatment:	No specific treatment required. Treat symptomatically and supportively.
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SECTION 5: FIREFIGHTING MEASURES

5.1	Suitable extinguishing media:	Water spray, carbon dioxide (CO ₂), foam, or dry chemical.
5.2	Unsuitable extinguishing media:	High volume water jet.
5.3	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.
5.4	Specific hazard arising from the product:	Flammable liquid and vapour. Fires involving the product may produce irritating or toxic products of combustion including oxides of carbon and nitrogen as well as hydrogen bromide gas. Containers may explode in heat of fire. Flashback may occur along vapour trail.
5.5	Additional provisions:	Fight fire from a safe distance, with adequate cover. Act in accordance with the site's Internal Emergency Plan. Contain the spread of the fire-fighting media. Keep container cool by spraying with water.

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. Eliminate all ignition sources. Ventilate the area of the spill or leak, especially when in confined areas. Do not breathe in fumes/vapour/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. Do not touch or walk through spilled material as it could be slippery when spilt. Wear appropriate protective and anti-static clothing recommended in Section 8 of the SDS including chemical impermeable gloves.
- 6.2 Environmental precautions:** Prevent spillage or further leakage if safe to do so. Prevent contact with soil and entry to sewers, drains and water courses in case of accidental spillage as the product is highly toxic to fish and aquatic species. Do not allow the spilt product to spread to other areas - keep the spilt material contained and isolated. Report spills and releases as 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 spill kit. Collect the spilt product and place it into suitable labelled containers for proper disposal as hazardous waste.

SECTION 7: HANDLING AND STORAGE

- 7.1 Precautions for safe handling:** Provide good ventilation in the work area. Prevent contact with eyes, skin, and clothing. Wear protective clothing and equipment during handling as described in Section 8 of the SDS.

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. 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:

Store away from potential ignition sources in properly labelled containers – preferably the original containers. The entrance to storage facilities should be granted only to appropriately trained personnel. Always store locked up and keep containers tightly closed when not in use. Check storage containers regularly for leaks.

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.

Avoid cross contamination with other agricultural products and store away from incompatible materials like oxidizing agents.

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 AND PERSONAL PROTECTION

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

The product, as supplied, does not contain any ingredient for which an occupational exposure limit has been established by the South African Department of Employment and Labour.

8.2 Appropriate engineering controls:

Use explosion-proof electrical/ventilating/lighting/equipment. Use with local exhaust ventilation to maintain airborne concentrations and exposure as low as possible.

8.3 Exposure controls:

Respiratory 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, use an approved respirator (half/full face mask) with an organic vapour cartridge/canister. 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.

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. Splash resistant safety glasses 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

Physical state:	Liquid
Colour:	Clear - yellow
Odour:	Mild petroleum-like odour
Storage stability:	Stable
Shelf life:	24 months
Density @ 20 °C :	0.87 to 0.98 g/ml
pH:	4.8 to 6.9
Flammability:	Flammable liquid and vapour
Flash point (°C):	Not determined for the product but expected to be >40°C but <60°C
Flammable limits-LEL:	No data available
Vapour pressure (Pa):	No data available
Boiling point (°C):	No data available
Kinematic viscosity:	No data available
Solubility:	Emulsifiable with water

SECTION 10: STABILITY AND REACTIVITY

- 10.1 Reactivity:** The product is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
- 10.2 Chemical stability:** Hazardous polymerization will not occur. Stable under normal ambient conditions of use, storage, and transport.
- 10.3 Possibility of hazardous reactions:** None known under conditions of normal use.
- 10.4 Conditions to avoid:** Extreme temperatures (>40°C), storage without ventilation and direct sunlight.
Heat, sparks, flame, and build-up of static electricity.
- 10.5 Incompatible materials:** Strong oxidizers and acids.
- 10.6 Hazardous decomposition products:** Incomplete combustion will produce carbon monoxide and other toxic fumes including oxides of carbon and nitrogen as well as hydrogen bromide gas.

SECTION 11: TOXICOLOGICAL INFORMATION

- 11.1 Information on likely routes of exposure:**
Occupational exposure to the product may occur through inhalation and dermal contact with the product at workplaces where it is produced or used.
- 11.2 Information on toxicological effects:**
Acute toxicity: No experimental toxicological data are available for the product. Assessment of toxicological effects are based on the ingredients. The product is of low acute toxicity.

Assessment of acute toxicity:

Product/ingredient Name	Dose Acute -	Species	Test Result
Deltanex 15 EC	> 2 000 mg/kg	Rat	ATE _(MIX) Oral
Deltamethrin	52 mg/kg	Rat	LD ₅₀ Oral
Deltamethrin	> 2 000 mg/kg	Rat	LD ₅₀ Dermal
Deltanex 15 EC	>5 mg/L	Rat	ATE _(MIX) Inhalation (Dust/Mist)
Deltamethrin	0.6 mg/L	Rat	LC ₅₀ Inhalation (Dust/Mist)

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 met for serious eye irritation.

Benzenesulfonic acid, C10-13-alkyl derivs., calcium salt: Rabbits were exposed to 0.1 ml of 100% test substance in the eye for 24 hours (OECD Guideline 405). Results show that the test substance may cause serious damage to the eyes. Data source: ECHA.

Respiratory/Skin Sensitization:

Assessment of sensitization:

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

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 met for respiratory irritation and narcotics effects.

Light Aromatic Petroleum Solvent and Piperonyl butoxide: Irritates the respiratory tract and causes drowsiness and dizziness.

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 met.

Chemical pneumonitis may occur from as a result of pulmonary aspiration of the liquid during or after ingestion. Acute manifestations of aspiration pneumonitis are vomiting, coughing, and bronchopneumonia.

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:

The product is highly toxic to aquatic organisms and may cause long-term effects in the aquatic environment.

No eco-toxicological data are available for the formulated product. This ecological assessment is based on data available for the active ingredients Deltamethrin and Piperonyl butoxide.

Deltamethrin:

Species and genus	Exposure (hours/days)	Result in fresh water	Data source
Fish - (<i>Oncorhynchus mykiss</i>)	96h	Acute LC ₅₀ : 0.00015 mg/L	Pesticide Properties Database
Invertebrates – (<i>Daphnia magna</i>)	48h	Acute EC ₅₀ : 0.00056 mg/L	Pesticide Properties Database
Invertebrates – (<i>Daphnia magna</i>)	21 days	Chronic NOEC: 0.0000041 mg/L	Pesticide Properties Database
Algae (<i>Navicula pelliculosa</i>)	72 h	Acute EC ₅₀ : > 0.00047 mg/L	Pesticide Properties Database

Piperonyl butoxide:

Species and genus	Exposure (hours/days)	Result in fresh water	Data source
Fish - (<i>Cyprinidae</i>)	96h	Acute LC ₅₀ : 5.3 mg/L	Pesticide Properties Database
Invertebrates – (<i>Daphnia magna</i>)	48h	Acute EC ₅₀ : 0.51 mg/L	Pesticide Properties Database
Algae – species unknown	72 h	Acute EC ₅₀ Growth: : 0.24 mg/L	Pesticide Properties Database

12.2 Other Environmental and Adverse Effects:

Data source: PubChem and ETOXNET.

Environmental Effect	Environmental effect applicable to the ingredient	Description
Persistence and Degradability	Deltamethrin	Biodegradation is expected to be an important environmental fate process for deltamethrin. In soil, deltamethrin undergoes microbial degradation within 1-2 weeks. Laboratory and field studies measured deltamethrin soil half-lives of 4.9-6.9 weeks in a sandy clay loam soil. If released into water, deltamethrin is expected to adsorb to suspended solids and sediment based upon the K_{oc} values. Deltamethrin was found to be stable to hydrolysis at pH 5 and 7 and had a half-life of 2.5 days at pH 9. The photodegradation half-life of deltamethrin in distilled and natural water solutions exposed to sunlight was found to range from 1 to <5 days.
	Piperonyl butoxide	A half-life in aerobic soils of 14 days suggests that biodegradation may be an important environmental fate process. Piperonyl butoxide is stable to hydrolysis at pH 5, 7 and 9 under sterile, dark conditions.
Bioaccumulative Potential	Deltamethrin	Log BCFs of 2.62 and 2.7 in <i>Onchorynchus mykiss</i> (rainbow trout) suggest bioconcentration in aquatic organisms is high.
	Piperonyl butoxide	An estimated BCF of 27 suggests the potential for bioconcentration in aquatic organisms is low.
Mobility in Soil	Deltamethrin	If released to soil, deltamethrin is expected to have no mobility based upon K_{oc} values of 79 000 to 16 300 000. Volatilization from moist soil surfaces is expected to be an important fate process.
	Piperonyl butoxide	If released to soil, piperonyl butoxide is expected to have moderate to low mobility based upon K_{oc} values ranging from 399-830. Volatilization from moist soil surfaces is not expected to be an important fate process.
Other Adverse Effects	Deltamethrin	Due to its toxicity to aquatic organisms, the product should not be allowed to reach ground water, water course or sewage system, even in small quantities. Deltamethrin is considered toxic to bees.

	Piperonyl butoxide	PBO is practically non-toxic to birds and mammals. It is also practically non-toxic to bees by itself. However, PBO is often combined with insecticides that are toxic to bees. PBO is highly toxic to amphibians in the tadpole stage.
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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, and how to cleanse containers.

13.2 General container handling

Non-refillable container. Do not reuse or refill this container.

Triple rinse container (or equivalent) promptly after emptying.

Empty containers and offer for recycling if an available option.

Puncture and flatten container (where practical) and dispose of as hazardous waste.

Contaminated packaging: Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the product.

13.3 Additional special precautions

The product and its container must always be disposed of in a safe manner.

Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: TRANSPORT INFORMATION

	Land Transport (ADR/RID)	Inland Waterways (AND/ADNR)	Sea Transport (IMDG)	Air Transport (ICAO-TI/IATA-DGR)
UN Number	1268	1268	1268	1268

UN Proper Shipping Name	PETROLEUM DISTILLATES, N.O.S (Mixture containing Light Aromatic Petroleum Solvent)	PETROLEUM DISTILLATES, N.O.S (Mixture containing Light Aromatic Petroleum Solvent)	PETROLEUM DISTILLATES, N.O.S (Mixture containing Light Aromatic Petroleum Solvent)	PETROLEUM DISTILLATES, N.O.S (Mixture containing Light Aromatic Petroleum Solvent)
Transport Hazard Class	3	3	3	3
Transport Hazard Class Pictogram				
Transport Supplementary Hazard Class	9	9	9	9
Transport Supplementary Hazard Class Pictogram	 	 	 	 
Packaging Group	III	III	III	III
Environmental Hazard	YES	YES	YES	YES

SECTION 15: REGULATORY INFORMATION

15.1 South African Legislation:

Relevant regulatory information regarding authorization, Safety Data Sheets, Occupational Exposure Limits, Hazardous Substances, Dangerous Goods Transport and Waste:

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 Liquid, Category 3.	H226	Flammable liquid and vapour.
Acute Toxicity Oral, Category 3.	H301	Toxic if swallowed.
Aspiration Hazard – Category 1.	H304	May be fatal if swallowed and enters airways (aspiration hazard).
Skin Corrosion/Irritation, Category 2.	H315	Causes skin irritation.
Serious Eye Damage/Irritation, Category 1.	H318	Causes serious eye damage.
Serious Eye Damage/Irritation, Category 2.	H319	Causes serious eye irritation.
Acute Toxicity Inhalation, Category 3	H331	Toxic if inhaled.
STOT SE, Category 3.	H335 H336	May cause respiratory irritation. May cause drowsiness or dizziness.
Aquatic Toxicity Acute, Category 1.	H400	Very toxic to aquatic life.
Aquatic Toxicity Acute, Category 2.	H401	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.
Aquatic Toxicity Chronic, Category 3.	H412	Harmful 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
Log _{Pow}	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