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SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
The Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

SERVUS

Revision date: 10-March-2023 **Version:** 2 **Supersedes Date:** 20-December-2018

Print date: 10-March-2023

1. Product and Company Identification

Identification of the product/preparation

Product Name	SERVUS
Trade Name/Synonyms	None
Registration Number	L7271
Product Description and Formulation Type	An emulsifiable concentrate insecticide.

Active Ingredient

Deltamethrin

Formula	$C_{22}H_{19}Br_2NO_3$
CAS Number	52918-63-5

Supplier, Manufacturer, and/or Importer

Supplier

Company Name	ADAMA SOUTH AFRICA (PTY) LTD
Address	Ground Floor, Simeka House The Vineyards Office Estate 99 Jip de Jager Drive Belville 7530
Phone Number	+27 21 982 1460
Web-Address	www.adama.com

Emergency Phone Numbers

Nature of Emergency	Emergency Operator	Telephone Number
24 Hour Poisoning Emergency Helplines – National Advisory Bodies	Griffon Poison Information Centre	+27(0)82 446 8946
	Tygerberg Poison Information Centre:	+27 861 555 777
Spill Response and Transport Incidents	SPILL TECH®	+27(0)86 100 0366 +27 (0)83 253 6618
Product Properties and Hazards	ADAMA South Africa (Pty) Ltd	+27(0)21 982 1460

Relevant identified uses of the product and uses advised against

SERVUS is an emulsifiable concentrate contact and stomach insecticide for the control of insects in crops. The product should not be used for any other purpose or in any other manner contrary to the information supplied on the product label.

2. Hazard(s) Identification

Classification of the substance or 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.

GHS Classification:

Hazard Class	Category	Hazard Statement Number
Flammable Liquids	3	H226
Acute Toxicity, Oral	4	H302
Aspiration Hazard	1	H304
Skin Corrosion/Irritation	2	H315
Serious Eye Damage/Irritation	1	H318
Acute Toxicity, Inhalation	4	H332
STOT RE	2	H373
Aquatic Toxicity Acute	1	H400
Aquatic Toxicity Chronic	1	H410

Label Elements

Pictograms:

Signal Word:

Danger

Hazard Statements:

Statement Number	Hazard Statement
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways (aspiration hazard).
H315	Causes skin irritation.
H318	Causes serious eye damage.

H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure. Hearing organs.
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/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust/fumes/mist/vapours/spray.
P264	Wash hands, face, and any exposed skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves, protective clothing, eye protection and face protection.

Response -

Statement Number	Precautionary Statement
P317	Get medical help.
P330	Rinse mouth.
P331	Do NOT induce vomiting.
P391	Collect spillage.
P301 + P316	IF SWALLOWED: Get medical help immediately.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P333 + P317	If skin irritation or rash occurs, get medical help.
P362 + P364	Take off contaminated clothing and wash it before re-use.
P370 + P378	In case of fire: Use the available fire-fighting equipment to extinguish the fire.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water under the safety shower.
P305 + P354 + P338	IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

Storage –

Statement Number	Precautionary Statement
P405	Store locked up.
P403 + P233 + P235	Store in a well-ventilated place and keep container tightly closed. Keep cool.

Disposal -

Statement Number	Precautionary Statement
P501	Dispose of contents/container to a licensed waste facility and in accordance with local and national regulatory requirements.

Other Hazards

Gives off irritating or toxic fumes (or gases) in a fire. Will form explosive mixtures with air. Vapours may travel to source of ignition and flash back. Containers may explode when heated.

3. Composition/Information on Ingredients

Mixture

Common Name: SERVUS
IUPAC/Chemical Name-Active ingredient: [(*S*)-cyano-(3-phenoxyphenyl)methyl] (1*R*,3*R*)-3-(2,2-dibromoethenyl)-2,2-dimethylcyclopropane-1-carboxylate
Chemical Family: Pyrethroid ester
Formulation: Deltamethrin 25g/L – Emulsifiable Concentrate

Ingredients with Hazard Concerns (GHS)

According to UN GHS criteria.

Hazardous Component – Chemical Name	CAS Number	Weight - %	International GHS Classification
Xylene	1330-20-7	<70%	Flammable Liquids, Category 3. Acute Toxicity Dermal, Category 4. Acute Toxicity Inhalation, Category 4. Skin Corrosion/Irritation, Category 2. Aspiration Hazard, Category 1.
Ethyl benzene	100-41-4	10 – 30%	Flammable Liquids, Category 2. Acute Toxicity Inhalation, Category 4. STOT RE, Category 2. Hearing organs. Aspiration Hazard, Category 1.

Calcium dodecylbenzenesulphonate	26264-06-2	<10%	Acute Toxicity Oral, Category 4. Skin Corrosion/Irritation, Category 2. Serious Eye Damage/Irritation, Category 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 Acute and Chronic = 1000000.
2-Methylpropan-1-ol	78-83-1	<5%	Flammable Liquids, Category 3. Skin Corrosion/Irritation, Category 2. Serious Eyes Damage/Irritation, Category 1. STOT SE, Category 3.

NOTE: The other ingredients do not cause or contrinute toward the correct GHS classification of SERVUS and are therefore, in terms of the South African Regulations for Hazardous Chemical Agents - 2021; Regulation 14(b), not listed in the table above.

4. First-Aid Measures

Description of First-aid Measures

General Advice

Immediate medical attention is required. Acute exposure to SERVUS may require decontamination and life support for the victims. Provide this SDS to medical personnel for treatment. Emergency personnel should wear protective clothing appropriate to the type and degree of contamination.
Immediately remove contaminated clothing and remove the affected person from the contamination area. Keep the person warm, calm, and covered up. First Aid personnel should pay attention to their own safety.

Eye Contact

Immediately rinse/flush the eyes gently with water from the eye wash fountain for several minutes (at least 15 minutes), while holding the eyelids apart. Check for and remove contact lenses if easy to do so. Continue rinsing. Obtain immediate medical attention.

Skin Contact

Remove all contaminated clothing and shoes. Rinse the skin immediately with plenty of water for 15 to 20 minutes under the safety shower. Immediately contact a poison control centre or medical practitioner for advice. Wash contaminated clothing before re-use.

Inhalation

Immediately remove the affected victim from exposure to an area with 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. Immediately obtain medical attention.

Ingestion

Obtain immediate medical attention - call a poison control centre or medical practitioner immediately for treatment advice. If conscious, rinse mouth thoroughly with water. Never give anything by mouth to an unconscious or convulsing person. Do not induce vomiting. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomits.

Emergency Responders	Use Personal Protective equipment as required.

Most important symptoms/effects, acute and delayed

None known for the product.
Xylene: Acute (short term) inhalation exposure to mixed xylenes in humans results in irritation of the eyes, nose, and throat, gastrointestinal effects, eye irritation, and neurological effects.
Chronic (long-term) inhalation exposure of humans to mixed xylenes results primarily in central nervous system (CNS) effects, such as headache, dizziness, fatigue, tremors, and incoordination; respiratory, cardiovascular, and kidney effects have also been reported.

Indication of any immediate medical attention and special treatment needed

Notes to physician:
No specific antidote. Treat symptomatically and supportively.

5. Fire-Fighting Measures

Suitable (and unsuitable) extinguishing media	Use dry chemical, carbon dioxide, water fog, or foam. Contain fire control water for later disposal. Water spray should only be used to keep fire-exposed containers cool, flush spills away from exposures, disperse vapours and protect personnel attempting to stop leak. Do not use high volume water jets due to potential contamination.
Specific hazards arising from the chemical including thermal decomposition products	Flammable liquid and vapour. Fires involving the product may produce irritating or toxic products of combustion including hydrogen bromide gas and oxides of carbon and nitrogen. Containers may explode in heat of fire. Flashback may occur along vapour trail.
Special protective equipment and precautions for fire-fighters	Firefighters must wear emergency equipment including positive pressure self-contained breathing apparatus with a full-face mask. Remove unaffected containers from fire area if possible.
Additional provisions	Fight fire from a safe distance, with adequate cover. Act in accordance with the site's Internal Emergency Plan and the Workplace Specific Procedures for actions to be taken after an accident or other emergencies. Keep container cool by spraying with water.

6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures	Eliminate all ignition sources. Do not breathe in fumes/vapour/spray mist and avoid contact with eyes, skin and clothes. Evacuate personnel to a safe area when necessary. Ventilate the area of the spill or leak, especially when in confined areas. 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. Contain spills if it can be done without risk and clean-up immediately.

	Wear appropriate protective and ant-static clothing recommended in Section 8 of the SDS including chemical impermeable gloves.
Environmental precautions	Prevent spillage or further leakage if safe to do so. Do not allow the spilt product to enter water courses and drains and avoid contact with soil. 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).
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.
Reference to other SDS sections	See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

7. Handling and Storage

Precautions for safe handling	Always provide good ventilation in the work area. Prevent contact with eyes, skin, and clothing. Do not breathe in vapours/spray mist. Wear protective clothing and equipment during handling as described in Section 8 of the SDS. Do not eat or drink during use. Wash the hands and face thoroughly with soap after handling. 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. Remove contaminated clothing immediately if the product gets inside. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of work area and work clothing is recommended. Keep unprotected persons away from the area where the product is being applied.
Conditions for safe storage, including any incompatibilities	Store away from potential ignition sources. 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. Store only in properly labelled containers. 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.
Store away from incompatible materials like strong alkalis and 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.

8. Exposure Controls and Personal Protection

Components with workplace control parameters – National Occupational Exposure Limits

The product, as supplied, contains Xylene, 2-Methylpropan-1-ol, and Ethyl Benzene for which occupational exposure limits have been established by the South African Department of Employment and Labour:

Component	Type	Control Parameter	Update	Basis
Xylene	OEL-eight-hour TWA	200 ppm	2021	South African RELs*
	OEL – STEL/C	300 ppm	2021	South African RELs*
Ethyl Benzene	OEL-eight-hour TWA	100 ppm	2021	South African RELs*
2-Methylpropan-1-ol	OEL-eight-hour TWA	100 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, which does not exceed 15 minutes.

A Biological Exposure Index for Ethyl Benzene has been established by the South African Department of Employment and Labour:

Component	Sample Matrix	Sample Time	Value
Ethyl Benzene	Urine	End of shift	0.15g/g creatinine

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.

Personal Protective Equipment

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 (full face mask) with a particulate filter and an organic vapour cartridge or supplied air respirator should be used. Respirator selection and use should be based on contaminant type, form, and concentration. 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 fire/flame resistant/retardant clothing and 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 goggles and 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 this material is used and on the extent of exposure. Ensure that 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.
Environmental exposure controls	In accordance with the local legislation for the protection of the environment it is recommended to avoid environmental spillage or releases of both the product and its container.

9. Physical and Chemical Properties

Unless otherwise stated, the data is applicable to the formulation.

Physical or Chemical Property		Value	Test Method or Remarks
Appearance	Appearance/physical state	Liquid	
	Odour characteristics	Aromatic sweet	
	Colour	Clear yellow	
Volatility	Boiling point (°C)	137 - 140	Xylene
	Vapour pressure at 20°C	6.5 mm Hg	Xylene
	Evaporation Rate at 20 ºC	Not determined	
Product Descriptors	Solubility in water	Not determined	
	Decomposition temperature (°C)	Not determined	
	Melting point (°C)	Not applicable (liquid)	
	pH	Not determined	
	Density (g/cm^3) at 20°C	0.928	
	Bulk Density/relative density (g/L)	Not determined	
	Particle characteristics	Not applicable - liquid	
	Octanol/water partition coefficient as Log P_{OW}	Not determined	
	Kinematic viscosity	2.315	Similar product
Flammability	Flammable (Y/N)	Flammable	
	Flash point (°C)	>27	
	Flammable limits-LEL	1.9%	Solvent
	Flammability limits -UEL	12.3%	Solvent
	Auto-ignition Temperature (°C)	Not determined	

Other Hazard Information

None.

10. Stability and Reactivity

Reactivity	The product is not reactive under normal ambient and anticipated storage and handling conditions of temperature and pressure. Decomposes at elevated temperatures.
Chemical Stability	Hazardous polymerization will not occur. Stable under normal ambient conditions of use, storage, and transport.
Possibility of Hazardous Reactions	None known under conditions of normal use.
Hazardous Decomposition Products	Does not decompose when used for intended uses. Can decompose under fire or during burning – irritating or toxic products of combustion including hydrogen bromide gas and oxides of carbon and nitrogen.

Conditions to Avoid

Shock and Friction	Contact with Air	Heat and Ignition Sources	Sunlight	Humidity or Moisture Conditions
Not applicable	Avoid storage without ventilation.	Avoid exposing to excessive heat and ignition sources.	Do not store in direct sunlight.	Avoid moisture conditions during storage.

Incompatible Materials

Incompatable with:

Strong Acids	Water	Combustive Materials	Strong Alkalis	Other Incompatible Substances
Yes	Not applicable	Yes	Yes	None known for the product

11. Toxicological Information

Information on likely routes of exposure

The product is harmful if ingested or inhaled. It may be absorbed into the body by inhalation of vapour or spray. The product may come into contact with the skin or eyes.

Information on toxicological effects

Specific test data for the product are not available. The classification is based on calculation and the data of the ingredients/components.

Acute toxicity:

Product Information	Fatal	Toxic	Harmful	May be Harmful	Not classified
Ingestion - Oral			√		
Dermal/Skin Contact					√
Inhalation			√		

Assessment of acute toxicity:

Product/ingredient Name	Dose Acute -	Species	Test Result
SERVUS	1 898 mg/kg	Rat	$ATE_{(MIX)}$ Oral
Deltamethrin	>2 000 mg/kg	Rabbit	LD_{50} Dermal
SUPRANEX	1.87 g /l	Rat (4h)	$ATE_{(MIX)}$ Inhalation (Dust/Mist)
	13.47 g/l	Rat 4h)	$ATE_{(MIX)}$ Inhalation (Vapours)

Irritation – Dermal/Skin and Eyes:
Assessment of irritation effects (skin/eyes):
Based on available data, the classification criteria are met for skin irritation.
Xylene: Mild-moderate skin irritation was reported in rats and rabbits treated topically with mixed xylene or xylene isomers (ECHA). Repeated or prolonged skin contact could cause skin inflammation and defatting resulting in cracking and peeling - particularly after prolonged or repeated contact. Redness of the skin and blisters may also occur (ATSDR – Agency for Toxic Substances and Disease Registry – Medical Guidelines for Xylene).
Calcium dodecylbenzenesulphonate: The results of the study (Rhodia,1998) indicate that the ingredient is an irritant to skin - 0.5 mL according to OECD GHS guidelines.

Corrosion/Damage – Dermal/Skin and Eyes:
Assessment of corrosion/damage effects (skin/eyes):
Based on available data, the classification criteria are met for serious eye damage.
Calcium dodecylbenzenesulphonate: Causes serious eye damage.
Xylene: Moderate eye irritation was observed in rabbits treated with mixed xylenes although Smyth (1962) found m-xylene to be non-irritating. Primary irritation studies in rabbits using the washed and unwashed eye (HLA, 1983) demonstrated transient eye irritation (conjunctival redness and oedema) following exposure to o-xylene. No corneal effects were reported in either study. 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 not met.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure):
Assessment of STOT (repeated):
Based on available data, the classification criteria are met.
Ethylbenzene: Damages hair cells in the cochleae of rats. The effect is dose related. Higher ethylbenzene concentrations lead to greater death of hair cells.
No chronic studies were identified.

Aspiration hazard:
Assessment of repeated dose toxicity:
Based on available data, the classification criteria are met.
Xylene and ethyl benzene: May be drawn into the lungs if swallowed or vomited. Pulmonary aspiration of toxic vomitus or ingested liquid may cause inflammation of the lungs.

Symptoms related to the physical, chemical, and toxicological characteristics	The symptoms are included in Section 4.
Delayed and immediate effects as well as chronic effects from short and long-term exposure	Skin contact: irritation. Eye contact: serious eye damage or irritation. Other effects are included in Section 4.

12. Ecological Information

Ecotoxicity
SERVUS is very toxic to aquatic life with long-lasting effects.

No eco-toxicological data is available for the product. This ecological assessment is based on data available for the ingredients of the product. The data below refers to the active ingredient Deltamethrin.

Species and Genus	Exposure (hours/days)	Result in fresh water
Crustacea (Daphnia magna)	48h	Acute EC_{50} 0.00056 mg/l (Pesticide Properties Database)
Fish (Oncorhynchus mykiss)	96h	Acute LC_{50} 0.00015 mg/l (Pesticide Properties Database)
Algae and aquatic plants (Navicula pelliculosa)	72h	Acute EC_{50} Growth > 0.00047 mg/l (Pesticide Properties Database)

Toxicity to Other Species

Deltamethrin is considered toxic to bees. The reported 8-day LC_{50} for ducks was greater than 4 640 mg/kg diet; and greater than 10000 mg/kg diet for quail.

Other Environmental and Adverse Effects:

Environmental effect	Environmental Effect Applicable to Ingredient	Description
Persistence and degradability:	Deltamethrin	Deltamethrin disappears much more rapidly from soil environments from surface application routes as compared to application routes that wash it into or incorporate it into the soil. Photodegradation and volatilization is therefore important.
Bioaccumulative potential:	Deltamethrin	Log BCFs of 2.62 and 2.7 in Onchorynchus mykiss (rainbow trout) suggest bioconcentration in aquatic organisms is high.
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. If released into water, deltamethrin is expected to adsorb to suspended solids and sediment based upon the Koc values.
Other adverse effects:	Deltamethrin	None known.

13. Disposal Considerations

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.
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. Recondition if appropriate, or puncture and dispose of in a hazardous waste landfill, or by other procedures approved by the local authorities. Contaminated packaging: Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the product.
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.

14. Transport Information

	Land Transport (ADR/RID)	Inland Waterways (AND/ADNR)	See Transport (IMDG)	Air Transport (ICAO-TI/IATA-DGR)
UN Number	1993	1993	1993	1993
UN Proper Shipping Name	Flammable liquid, N.O.S. (Contains: Xylene & Deltamethrin)	Flammable liquid, N.O.S. (Contains: Xylene & Deltamethrin)	Flammable liquid, N.O.S. (Contains: Xylene & Deltamethrin)	Flammable liquid, N.O.S. (Contains: Xylene & Deltamethrin)
Transport Hazard Class	3	3	3	3
Transport Hazard Class Pictogram				
Transport Subsidary Class				

Packaging Group	III	III	III	III
Environmental Hazard	Yes	Yes	Yes	Yes
Special Precautions for User	-	-	Marine pollutant	-

15. Regulatory Information

Safety, health, and environmental regulations specific for the product in question

Symbol

F: Flammable, **C:** Corrosive, **Xi**: Irritant, **Xn**: Harmful. **N:** Dangerous for the Environment.

R- Phrase Number	R Phrase
R10	Flammable.
R20	Harmful by inhalation.
R22	Harmful if swallowed.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R48	Danger of serious damage to health by prolonged exposure.
R50	Very toxic to aquatic organisms.

No known specific country national and/or local regulations applicable to the product (including its ingredients). A summary of country specific general laws/regulations are supplied below.

South Africa:

Registration Requirements: Fertilizer, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act 36 of
1947).

Pesticide Handling, Storage and Disposal Safety: SANS10206: 2020.

Safety Data Sheet and Occupational Exposure Limit Requirements: Regulations for Hazardous Chemical Agents – 2021 – SA Occupational Health and Safety Act. SANS11014:2010.

Control of and handling of poisonous/hazardous and non-poisonous/non-hazardous substances/chemicals in workplaces: Hazardous Substances Act, 1973 (Act No.15 of 1973). Occupational Health and Safety Act No. 85 of 1993.

16. Other Information

Key to Abbreviations

AND	European Provisions concerning the International Carraige od Dangerous Goods by inland Waterways
ADR	The European Agreement concerning the International Carraige of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
CAS Number	Chemical Abstracts Service Number
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 Carraige of Dangerous Goods by Rail
SDS	Safety Data Sheet
STOT	SpecificTarget Organ Toxicity
TWA	Time Weighted Average
UN	United Nations

Document Control

Date of preparation of the SDS	20 December 2018
Revision date	10 March 2023
Revision Note	Changes made to the last version are labelled with the sign ***. NOTE: This revision incorporates the GHS requirements for **SERVUS** and therefore the total content of the SDS has been revised.

The Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Classification of the Mixture - Classification Procedure

H Statement Number	H Statement	Classification Basis: Test Data/Calculation Method
H226	Flammable liquid and vapour.	Flash Point of ingredients and product.
H302	Harmful if swallowed.	Calculated for ingredients.
H304	May be fatal if swallowed and enters airways (aspiration hazard).	Calculated and Kinematic viscosity of the ingredients and product.

H315	Causes skin irritation.	Calculated for ingredients.
H318	Causes serious eye damage.	Calculated for ingredients.
H332	Harmful if inhaled.	Calculated for ingredients.
H373	May cause damage to organs through prolonged or repeated exposure. Hearing organs.	Calculated for ingredients.
H410	Very toxic to aquatic life with long-lasting effects.	Calculated for active ingredient.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet