



Country: RSA, NAM, BOT, ZAM, MOZ
 Language: English
 Version: 1

SDS Number: 000035
 Issue Date: 2023-05-01
 Print Date: 2024-11-21

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

Product identifier				
Product form		Mixtures		
Trade name		Hormoban APM		
Product code		100ml 20523 (600137901582)		
Registration Number		L0412 / N-AR0134 / W130198 / DSV - 2190		
SDS Number		000035		
1.1. Relevant identified uses of the substance or mixture and uses advised against				
1.1.1. Relevant identified uses				
Main use category		Selective Herbicide for Lawns		
Industrial/Professional use spec		Home and Garden.		
Use of the substance/mixture		Weed killer.		
1.1.2. Uses advised against				
		See product label for restrictions.		
1.3. Details of the supplier of the safety data sheet				
		Agro-Serve (Pty) Ltd 15 Diesel Road, Isando, 1600, South Africa P.O. Box 652147, Benmore, 2010, South Africa		
Telephone		+27 861 333 586 08h00 – 17h00 Monday to Friday		
Email		info@efekto.co.za		
Website		www.efekto.co.za		
1.4. Emergency telephone number				
Country	Organisation/Company	Address	Emergency number	Comment
Poisons Centre				
South Africa	Griffon Poisons Centre		082 446 8946	Dr Gerhard H Verdoorn
Spillage				
South Africa	Spill Tech		086 100 0366	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture				
Classification according to Regulation (EC) No. 1272/2008 [CLP] Mixtures				
		Oral Acute Tox.: Category 4: H302 Harmful if swallowed.		
		Skin irritation: Category 1: H317 May cause an allergic skin reaction.		
		Eye damage: Category 1: H318 Causes serious eye damage.		
		Acute aquatic toxicity: Category 1: H400 Very toxic to aquatic life.		
		Chronic aquatic toxicity: Category 1: H410 Very toxic to aquatic life with long lasting effects.		
2.2. Label elements				
Labelling according to Regulation (EC) No. 1272/2008 [CLP]				
Hazard pictograms:	 			
	GHS07	GHS09		
Hazardous components which must be listed on the label:	• MCPA Potassium Salt; Dicamba APM salt			
CLP Signal word:	Warning			
Hazard statements:	H302: Harmful if swallowed.			
	H317: May cause an allergic skin reaction.			
	H318: Causes serious eye damage.			
	H410 Very toxic to aquatic life with long lasting effects.			
	EUH066 - Repeated exposure may cause skin dryness or cracking.			
	EUH401 - To avoid risks to human health and the environment, comply with the instructions for use.			
Precautionary statements:				
General Statement:	P101: 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:	P270: Do not eat, drink or smoke when using this product.			
	P273: Avoid release to the environment.			
	P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.			
Response Statements:	P302 + P352 IF ON SKIN: Wash with plenty of water.			

Country: RSA, NAM, BOT, ZAM, MOZ
 Language: English
 Version: 1

SDS Number: 000035
 Issue Date: 2023-05-01
 Print Date: 2024-11-21

	P305 + P351 + P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P391: Collect spillage.
Storage Statement:	P410+P403: Protect from sunlight. Store in a well-ventilated place.
Disposal:	P501: Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.
2.3. Other hazards	None known

SECTION 3: Composition/information on ingredients




3.1. Substances

Emulsifiable concentrate (EC)

Biocidal product

3.2. Mixtures

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Chemical Name	CAS-No.	EC – Number	Conc. % by weight	Classification	Warning Symbols
MCPA potassium salt 4-chloro-2-methylphenoxy)acetic acid potassium salt. (Hazard classification of this material is based on the worst possible case)	5221-16-9	226-015-4	25 %	Acute Tox. 4: H302. Acute Tox. 4: H332. Acute Tox. 4: H312. Aquatic Acute 1: H400. Aquatic Chronic 1: H410.	
Dicamba APM salt 3,6-dichloro-o-anisic acid (Hazard classification of this material is based on the worst possible case)	2300-66-5	2300-66-5	10 %	Eye Irrit. 2: H319. Aquatic Chronic.4: H412.	
Potassium hydroxide (Hazard classification of this material is based on the worst possible case)	1310-58-3	215-181-3	< 2 %	Met. Corr. 1: H290. Acute Tox. 4: H302.	
Dipropylene glycol monomethyl ether (Hazard classification of this material is based on the worst possible case)	34590-94-8	252-104-2	< 5 %	Not classified	
Other ingredients (non-hazardous) to 100%			Balance		

Note A: Without prejudice to Article 17(2), the name of the substance must appear on the label in the form of one of the designations given in Part 3. In Part 3, use is sometimes made of a general description such as ‘... compounds’ or ‘... salts’. In this case, the supplier is required to state on the label the correct name, due account being taken of section 1.1.1.4

Further information

MCPA potassium salt	5221-16-9	M-Factor: 10 (acute); 10 (chronic)
Dicamba, APM salt	2300-66-5	M-Factor: 10 (acute); 10 (chronic)

Contains 1,2-Benzisothiazolin-3-one (CAS number 2634-33-5) at a level below the concentration limit for classification of the mixture as sensitising.

For the full text of the Hazard statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General Advice	Have the product container, label or Safety Data Sheet with you when calling the emergency number, a poison control centre or physician, or going for treatment.
First-aid measures after inhalation	Move the victim to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or Poison Control Centre immediately.
First-aid measures after skin contact	Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use
First-aid measures after eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.
First-aid measures after ingestion	If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting.

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

No information available.

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

Maintain adequate ventilation and oxygenation of the patient. If breathing is difficult, oxygen should be administered by qualified personnel. Chemical eye burns may require extended irrigation. Obtain prompt consultation, preferably from an ophthalmologist. If burn is present,

Country: RSA, NAM, BOT, ZAM, MOZ
 Language: English
 Version: 1

SDS Number: 000035
 Issue Date: 2023-05-01
 Print Date: 2024-11-21

	treat as any thermal burn, after decontamination. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.
--	--

SECTION 5: Firefighting measures	
5.1. Extinguishing media	
Suitable	Extinguishing media - small fires Use alcohol-resistant foam, dry chemical or carbon dioxide. Extinguishing media - large fires Use alcohol-resistant foam or water spray.
Unsuitable	Do not use a solid water stream as it may scatter and spread fire.
5.2. Special hazards arising from the substance or mixture	
	Under fire conditions some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide.
5.3. Advice for firefighters	
	Special protective equipment for fire-fighters Wear full protective clothing and self-contained breathing apparatus. Do not allow run-off from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.
5.3. Further information	
	In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.


SECTION 6: Accidental release measures	
6.1. Personal precautions, protective equipment and emergency procedures	
6.1.1. For non-emergency personnel	
Emergency procedures	Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces. Ventilate spillage area. Avoid contact with skin and eyes.
6.1.2. For emergency responders	
Protective equipment	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
6.2. Environmental precautions	
	Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
6.3. Methods and material for containment and cleaning up	
For containment	Collect spillage.
Methods for cleaning up	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Other information	Dispose of materials or solid residues at an authorized site.
6.4. Reference to other sections	
	Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13.

SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Precautions for safe handling	No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift.
Hygiene measures	Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.
7.2. Conditions for safe storage, including any incompatibilities	
Storage conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Store in original container. Keep away from direct sunlight. Protect from freezing.
Storage temperature	>0°C <40°C
7.3. Specific end use(s)	
	Refer to the label and/or leaflet.

Country: RSA, NAM, BOT, ZAM, MOZ
 Language: English
 Version: 1

SDS Number: 000035
 Issue Date: 2023-05-01
 Print Date: 2024-11-21

SECTION 8: Exposure controls/personal protection

Control parameters				
Components	CAS-No.	Exposure limit(s)	Type of exposure limit	Source
MCPA	5221-16-9	0.1 mg/m ³	(SK-SEN)	OES
Potassium hydroxide	1310-58-3	2 mg/m ³	8 h TWA	OES
Dipropylene glycol monomethyl ether	34590-94-8	308 mg/m ³	8 h TWA	2000/39/EC
RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.				
Appropriate engineering controls:	Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.			
Hand protection:	Chemical resistant nitrile rubber gloves.			
Eye protection:	Safety glasses with side-shields (frame goggles) (e.g. EN 166)			
Skin and body protection:	Assess the exposure and select chemical resistant clothing based on the potential for contact and the permeation / penetration characteristics of the clothing material. Wash with soap and water after removing protective clothing. Decontaminate clothing before reuse, or use disposable equipment (suits, aprons, sleeves, boots, etc.) Wear as appropriate: impervious protective suit.			
Respiratory protection:	A combination gas, vapor and particulate respirator may be necessary until effective technical measures are installed. Protection provided by air-purifying respirators is limited. Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.			
Personal protection:				
General protective measures:	Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.			
Environmental exposure controls:	For information regarding environmental exposure controls, see Section 6..			

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties	
Physical state	Liquid
Colour	Brown
Odour	Mild phenolic
Odour threshold	No data available
Melting point / Freezing point	No data available
Boiling point or initial boiling point and boiling range	> 100 °C
Flammability	No data available
Lower and upper explosion limit	No data available
Flash point	200 °C (Pensky Martins closed cup)
Auto ignition temperature	600 °C
Decomposition temperature	No data available
pH	9 - 10 at 1 % w/v
Kinematic viscosity	2.337 mm ² /sat40 °C
Solubility	Soluble in water
Partition coefficient octanol / water (log value)	MCPA: log Pow: 1.4 Dicamba: log Pow: 0.55
Vapour pressure	No data available
Density Solubility	ca. 1.07 g/cm ³ at 20 °C
Relative density	1.168-1.188
Particle characteristics	No data available
9.2. Other information	
No additional information available.	

SECTION 10: Stability and reactivity

Country: RSA, NAM, BOT, ZAM, MOZ
 Language: English
 Version: 1

SDS Number: 000035
 Issue Date: 2023-05-01
 Print Date: 2024-11-21

10.1. Reactivity	Stable under normal conditions.
10.2. Chemical stability	Stable under recommended storage conditions.
10.3. Possibility of hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions.
10.4. Conditions to avoid	Extremes of temperature and direct sunlight.
10.5. Incompatible materials	Oxidizing agents, strong acids, strong bases..

SECTION 11: Toxicological information

11.1. Information on toxicological effects	
Acute toxicity	: Not classified
Based on information for component(s):	
MCPA	
LD50 oral rat	LD50 male rat, > 1,017 mg/kg Estimated.
LD50 dermal rat	LD50 male and female rabbit, > 2,325 mg/kg Estimated.
LC50 inhalation rat (mg/l)	LC50 rat, > 3.16 mg/l, 4 h Estimated.
ATE CLP (vapours)	3.200 mg/l/4h
ATE CLP (dust, mist)	3.200 mg/l/4h
Skin corrosion/irritation	This product will irritate the skin and may be sensitising to sensitive individuals. Acute dermal LD50 > 1,000 mg/kg – MCPA.
Serious eye damage/irritation	May cause moderate eye irritation. May cause corneal injury.
Respiratory or skin sensitisation	Non-sensitizing (Mouse). OECD Test Guideline 429, local lymph node assay (LLNA)
STOT-single exposure	Evaluation of available data suggests that this material is not an STOT-SE toxicant.
STOT-repeated exposure	For similar active ingredient(s). 2-methyl-4-chlorophenoxyacetic acid (MCPA). In animals, effects have been reported on the following organs: Liver. Kidney. Blood. Testes. For the minor component(s): In animals, effects have been reported on the following organs: Blood. Kidney. Liver. Spleen.
Aspiration hazard	Inhalation of mists or sprays may produce respiratory irritation.
Assessment mutagenicity	MCPA is reportedly weakly mutagenic to bone marrow and ovarian cells of hamsters, but negative results were reported for other mutagenic tests. It was negative in a bacterial test system (both with and without metabolic activation), negative in spot tests, and negative in host-mediated tests. It produced no detectable increase in chromosomal aberrations in house flies. Some irregularities occurred in gene transfer during cell division in brewer's yeast, although at levels which caused massive cell death. It appears that the compound poses little or no mutagenic risk.
Assessment carcinogenicity	All available evidence on MCPA indicates that the compound does not cause cancer. Forestry and agricultural workers occupationally exposed to MCPA in Sweden did not show increased cancer incidence
Assessment toxicity to reproduction	A two-generation rat study at doses of up to 15 mg/kg/day affected reproductive function. Even smaller amounts of the compound were toxic to the foetuses. Dogs receiving relatively small amounts of MCPA (8 and 16 mg/kg) for 13 weeks showed adverse sperm and testes changes. It is unlikely that humans will experience these effects under normal exposure conditions
Assessment developmental toxicity	MCPA is rapidly absorbed and eliminated from mammalian systems. Rats eliminated nearly all of a single oral dose within 24 hours, mostly through urine with little or no metabolism. In another rat study, three quarters of the dose was eliminated within 2 days. All was gone by 8 days. Humans excreted about half of a 5 mg dose in the urine within a few days. No residues were found after day 5. Cattle and sheep fed low to moderate doses of MCPA in the diet for 2 weeks showed no residues from levels less than about 18 mg/kg.
Dicamba APM	
LD50 oral rat	1039 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat (mg/l)	4,46 mg/l/4h
ATE CLP (vapours)	Not classified
ATE CLP (dust, mist)	Not classified
Skin corrosion/irritation	Not irritant to skin (OECD Guideline n°404)
Serious eye damage/irritation	Not irritant to eyes (OECD Guideline n°405)
Respiratory or skin sensitisation	Not skin sensitizing (OECD Guideline n°406)
STOT-single exposure	
STOT-repeated exposure	Dicamba did not cause specific target organ toxicity in experimental animal studies.

Country: RSA, NAM, BOT, ZAM, MOZ
 Language: English
 Version: 1

SDS Number: 000035
 Issue Date: 2023-05-01
 Print Date: 2024-11-21

Aspiration hazard	Not classified
Assessment mutagenicity	Dicamba was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.
Assessment carcinogenicity	Dicamba was not carcinogenic in lifetime feeding studies in rats and mice.
Assessment toxicity to reproduction	Dicamba did not cause reproductive toxicity in a two-generation study in rats.
Assessment developmental toxicity	Dicamba did not cause developmental toxicity in rats and rabbits.
Further information	Cutaneous sensations may occur, such as burning or stinging on the face and mucosae. However, these sensations cause no lesions and are of a transitory nature (max. 24 hours). Irritating to respiratory system.

SECTION 12: Ecological information

12.1. Toxicity	
Ecology - general:	Very toxic to aquatic life with long lasting effects.
MCPA	
LC50 fish 1	Rainbow trout (<i>Oncorhynchus mykiss</i>) 99.3 mg/l; Exposure time: 96 h
EC50 Daphnia 1	Water flea (<i>Daphnia magna</i>) 424 mg/l; Exposure time: 48 h
ErC50 (algae)	<i>Skeletonema costatum</i> (marine diatom) 60.7 mg/l; Exposure time: 72 h
Bees LD50 (oral)	> 200 ng/bee
Bees LC50 (contact)	> 109 ng/bee
Earthworm LC50 (14 days)	> 325 mg/kg soil
Birds Oral LD50	Bobwhite quail (<i>Colinus virginianus</i>): 377 mg/kg
Birds LC50 (14-day diet)	Bobwhite quail (<i>Colinus virginianus</i>): > 2250mg/kg bodyweight
Birds LD50 (14-day diet)	Bobwhite quail (<i>Colinus virginianus</i>): > 5620mg/kg diet
Dicamba	
LC50 fish 1	Rainbow trout (<i>Oncorhynchus mykiss</i>) 135.4 mg/l; Exposure time: 96 h
EC50 Daphnia 1	Water flea (<i>Daphnia magna</i>) 110.7 mg/l; Exposure time: 48 h
ErC50 (algae)	<i>Skeletonema costatum</i> (marine diatom) 43.1 mg/l; Exposure time: 72 h
Bees LD50 (oral)	> 215.8 ng/bee
Bees LC50 (contact)	> 200 ng/bee
Earthworm LC50 (14 days)	> 320 mg/kg soil
Birds Oral LD50	Bobwhite quail (<i>Colinus virginianus</i>): 377 mg/kg
Birds LC50 (14-day diet)	Bobwhite quail (<i>Colinus virginianus</i>): > 2000mg/kg bodyweight
Birds LD50 (14-day diet)	Bobwhite quail (<i>Colinus virginianus</i>): > 5000mg/kg diet
12.2. Persistence and degradability	
MCPA	
Persistence and degradability	Readily biodegradable. DT50 : 7-14d
Koc	50 - 60
Dicamba	
Persistence and degradability	Readily biodegradable. DT50 : 2.1-8d
Koc	5.1
12.3. Bioaccumulative potential	
MCPA	
Log Pow	0.59 25°C pH 9.0 (BCF) 1
Bioaccumulative potential	Does not bioaccumulate.
Dicamba	
Log Pow	3.2443 (BCF) 1
Bioaccumulative potential	Does not bioaccumulate.
12.4. Mobility in soil	
MCPA	
Mobility in soil	Mobile in soils
Log Koc1	10 - 157
Ecology - soil	MCPA and its formulations are rapidly degraded in soil and have low persistence. Half-life is 14 days to 1month.
Dicamba	
Mobility in soil	Very high mobility in soil
Log Koc1	242–2930, depending on soil.
Ecology - soil	Typical half-life in soil is 1 to 4 weeks. Dicamba breaks down slowly in sunlight. Soil microbes are primarily responsible for its breakdown. In aquatic environments, microbial degradation is the main route of degradation as dicamba is chemically stable in water. Photolysis may occur,

Country: RSA, NAM, BOT, ZAM, MOZ
 Language: English
 Version: 1











SDS Number: 000035
 Issue Date: 2023-05-01
 Print Date: 2024-11-21

	but aquatic hydrolysis, volatilisation, absorption to sediments and bioconcentration are not expected to be significant. Dicamba has very high mobility in soil.
12.5. Results of PBT and vPvB assessment	
	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII.
	This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.

SECTION 13: Disposal considerations

13.1. Waste treatment methods	
Waste treatment methods	Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information	Follow container label instructions for disposal of wastes generated during use in compliance with the product label. Never place unused product down any indoor or outdoor drain.
Contaminated packaging	Do not re-use empty containers. Place empty container in trash. Follow advice on product label and/or leaflet.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / AND / RID				
ADR	IMDG	IATA	ADN	RID
14.1. UN number				
3082	3082	3082	3082	3082
				
14.2. UN proper shipping name				
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S
Transport document description				
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (MCPA POTASSIUM SALT, DICAMBA APM), 9, III, (D/E), ENVIRONMENTALLY HAZARDOUS	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (MCPA POTASSIUM SALT, DICAMBA APM), 9, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (MCPA POTASSIUM SALT, DICAMBA APM), 9, III, ENVIRONMENTALLY HAZARDOUS	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (MCPA POTASSIUM SALT, DICAMBA APM), 9, III, ENVIRONMENTALLY HAZARDOUS	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (MCPA POTASSIUM SALT, DICAMBA APM) 9, III, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)				
9	9	9	9	9
				
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture	
Registration No.	L0412 / N-AR0134 / W130198 / DSV - 2190
Signal word:	Harmful!
This chemical is a registered pesticide product and is subject to certain labelling requirements under law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information required on the pesticide label.	
Hazard statements:	Handle with care. Poisonous when absorbed through the skin or swallowed or inhaled. Store in a cool place.

Country: RSA, NAM, BOT, ZAM, MOZ
 Language: English
 Version: 1

SDS Number: 000035
 Issue Date: 2023-05-01
 Print Date: 2024-11-21

	Store away from food, feeds, seed, other agricultural remedies and out of reach of children, uninformed persons and animals.
	Do not inhale spray mist and fumes.
	Wash contaminated clothing daily.
	Wash with soap and water immediately after accidental skin contact.
	Do not eat, drink or smoke whilst mixing and applying or before washing hands and face and change of clothing.
	Avoid spray drift onto other crops, grazing, rivers, dams and any area not under treatment.
	To avoid injury to desirable plants, spray equipment used for application should not be re-used to apply other materials to such plants.
	Dispose of wash water where it will not contaminate crops, grazing, rivers and dams.
	Rinse empty container three times with a volume of water equal to a minimum of 10 % of that of the container. Add the rinse water to the contents of the spray tank.
	Destroy empty container. Never use for any other purpose.
	Prevent contamination of food, feeds, drinking water and eating utensils.
	Application by means of a watering can or equipment attached to garden hoses is not recommended.
	Knapsack sprayers and pressurised sprayers are however suitable equipment to use.
	Keep out of reach of children uninformed persons and animals.
	Store in a dry place, away from food and feed.
Classification according to WHO:	II (Moderately hazardous)
Classification according to GHS:	Category 4
Classification according to GPIC:	Category II
HRAC Insecticide Group Code:	4
15.2. Chemical safety assessment	
	Young people under the age of 18 are not allowed to work with the substance.

SECTION 16: Other information

Indication of changes:			
Section	Changed item	Change	Comments
Full text of H- and EUH-statements:			
H302	Harmful if swallowed.		
H312	Harmful in contact with skin.		
H314	Causes severe skin burns and eye damage.		
H332	Harmful if inhaled.		
H400	Very toxic to aquatic life.		
H410	Very toxic to aquatic life with long lasting effects.		
Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:			
Acute Tox. 4	H302	On basis of test data.	
Acute Tox. 43	H332	On basis of test data.	
Skin Irrit.	H315	Annex VII conversion.	
Eye Dam. 1	H319	Expert judgment.	
Aquatic Acute 1	H400	Calculation method.	
Aquatic Chronic 1	H410	Calculation method.	
HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)			
Health - 1	Flammability - 1	Physical Hazard - 0	PPE -
0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard			
Abbreviations and acronyms			
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.		
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road.		
ATE	Acute toxicity estimate.		
CAS-Nr.	CAS-Nr. Chemical Abstracts Service number.		
CEILING	Ceiling Limit Value.		
Conc.	Concentration.		
EC-No.	European community number.		
ECx	Effective concentration to x %.		
IATA	International Air Transport Association.		
IBC	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code).		

Country: RSA, NAM, BOT, ZAM, MOZ
 Language: English
 Version: 1

SDS Number: 000035
 Issue Date: 2023-05-01
 Print Date: 2024-11-21

ICx	Inhibition concentration to x %.
IMDG	International Maritime Dangerous Goods.
LCx	Lethal concentration to x %.
LDx	Lethal dose to x %.
LOEC/LOEL	Lowest observed effect concentration/level.
MARPOL	MARPOL: International Convention for the prevention of marine pollution from ships.
N.O.S.	Not otherwise specified.
NOEC/NOEL	No observed effect concentration/level.
OECD	Organization for Economic Co-operation and Development.
OES	Occupational Exposure Standard.
PEAK	PEAK: Exposure Standard - Peak means a maximum or peak airborne concentration of a particular substance determined over the shortest analytically practicable period of time which does not exceed 15 minutes.
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail.
SK-SEN	Skin sensitiser.
SKIN_DES	SKIN_DES: Skin notation: Absorption through the skin may be a significant source of exposure.
STEL	STEL: Exposure standard - short term exposure limit (STEL): A 15-minute TWA exposure which should not be exceeded at any time during a working day even if the eight-hour TWA average is within the TWA exposure standard. Exposures at the STEL should not be longer than 15 minutes and should not be repeated more than four times per day. There should be at least 60 minutes between successive exposures at the STEL.
TWA	TWA: Exposure standard - time-weighted average (TWA): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.
UN	United Nations.
WHO	World health organisation.

This safety data sheet provides health and safety information. This product is to be used in applications with best use practice. The product information in this data sheet is to the best of our knowledge correct as at the date of publication. Agro-Serve (Pty) Ltd does not accept responsibility for damage caused by incorrect use of this information.

Training and related advice: This document contains important information to ensure the safe storage, handling and use of this product. It is the responsibility of your organisation to ensure that the information contained in this document is communicated to staff and that all necessary training to enable the product to be used correctly has been given.

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions.

Prepared BY: Nico Lionel van der Westhuis – Technical Support Marketing

SDS EU (REACH Annex II) Update 1 May 2023

End of Safety Data Sheet