

MERIDIAN AGROCHEMICAL COMPANY (PTY) LTD P.O. Box 436, Modderfontein, 1645, SOUTH AFRICA

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REG NO: 2000/010819/07 **VAT NO:** 4120189206

Safety Data Sheet

ALKANOX EC L9764 (Act 36 of 1947)

Date of issue: 20/11/2014 Date Revised: 26/06/2019

1) IDENTIFICATION	N OF THE SUBSTA	NCE OR MIXTUR	RE AND	OF THE	SUPPLIER.	
Product name:			ALKANOX EC			
Other means of identification:			Fluroxypyr 240g/L and Triclopyr 120g/L EC			
UN Number:			1993			
Recommended use			Herbici	Herbicide		
Restrictions on use;			Agriculture			
Distributed by:			P O BO MODD TEL 01 MOBIL www.a	ERFONTEIN 1 8228509 FAX 011 822 E: 0834006056 gritech.co.za		
Emergency Numbe	er:			012 66 WEST 0861 5 RAPID 0800 7	ERN CAPE POISONS TE 55 777 SPILL RESPONSE: 75 3305 ON POISON CENTRE:	ŕ
Chemical Name:			Triclopyr: 3,5,6-trichloro-2-pyridyloxyacetic acid Fluroxypyr-meptyl: 4-amino-3,5-dichloro-6-fluoro-2-pyridyloxyacetic acid			
2) Classification of		nixture:				
Classification of th	e product:			Skin irr Short-t Xn; Xi; Full tex	ct of R-phrases; see section	rd.Cat 1, H400
Label elements:				H410:		ife with long lasting effects
				P410: P501: waste	Ationary statements: Keep out of reach of child Dispose of contents/ Cont disposal plant. Word: WARNING	
Health effects: eyes:			May cause irritation.			
Health effects: skin:			May cause irritation.			
Health effects: ingestion			May be harmful			
Health effects: inhalation			May be harmful			
Health effects: Oth	er					
3) COMPOSITION /		N INGREDIENTS:	:			
Mixture:				:		
Chemical name	Composition	CAS No.	EC N	0.	Classification according to Regulation EC 1272/2008 (CLP)	Classification according to 67/548/EEC



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					REG NO	: 2000/010819/07 VAT NO : 41
Triclopyr butoxyethyl (As Butoxy ethyle ester)	120 g/L	64700-56-7	265-024-8		Acute toxicity, Oral Cat. 4, H302 Skin irritation. Cat 2, H315 Short-term (acute) aquatic hazard.Cat 1, H400	Xn-R22 N-R43, R51/53
Fluroxypyr: (As Fluroxypyr- meptyl)	240 g/L	81406-37-3	279-752-9		Acute toxicity, Dermal. Cat. 4, H312 Acute aquatic toxicity. Cat. 1, H400 Chronic aquatic toxicity. Cat. 1, H410	Xn-R22 Xi: N -R20/21/22. R36
Full text of R- and 4) First Aid Measu		section 15.				
Eye contact:	ле э.			Flush	eves with plenty of clean wa	eter for at least 15
Eye contact.			Flush eyes with plenty of clean water for at least 15 minutes holding eyelids open. Remove contact lenses if present after the first 5 minutes. Seek medical assistance . Obtain medical attention immediately if irritation persists.			
Skin contact:			Immediately remove contaminated clothing and flush body and clothes with large amounts of water for at least 15 0 20 minutes. Wash thoroughly with soap and water (including hair, skin and fingernails) Wash contaminated clothing before re-use. Seek medical assistance . Persons providing first aid must wear gloves to avoid self-contamination.			
Ingestion			There is no specific antidote if this product is ingested. Treat symptomatically (decontamination, vital functions) and supportively. May cause asthma – like symptoms. Bronchodilators, expectorants, antitussives and corticosteroids may be of help. The decision of whether or not to induce vomiting must be made by a physician. If lavage is performed, endotracheal and/or esophageal control is suggested. The danger from lung aspiration must be weighed against the toxicity when considering to empty the stomach.			
			Skin contact ma			
Inhalation:				water of medic unless Never	mouth immediately and get (if patient is conscious, aler al attention immediately. told to do so by a poison c induce vomiting or give any who is unconscious or is ha	t and able). Seek Do not induce vomiting ontrol centre or doctor. vthing by mouth to a
innalation:				Remove victim to fresh air. Keep patient calm. If the patient is not breathing, seek medical attention. Apply artificial respiration. If by mouth – to – mouth, use rescuer protection.		
Most important sy	mptoms and e	ffects, acute and dela	yed:	protec	uon.	
Advice to physici	an:				ecific antidote. Supportive c nent of physician in respons	
5) Fire-Fighting M	easures:			4		
Flash point:				Not av	ailable	
Extinguishing Media:			Use foam, carbon dioxide, dry extinguishing media, carbon dioxide fire extinguishers, water mist or fog (avoid water jet).			
Fire Fighting:						



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	Remove spectators from surrounding area. Isolate the fire area and evacuate downwind. Use a recommended extinguishing agent for the type of surrounding fire.
	Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal.
	Generating poisonous and corrosive fumes. Keep upwind.
	Consider the feasibility of a controlled burn in order to minimize negative environmental impacts. Keep away from low areas where the fumes can accumulate. Eliminate ignition sources. Remove the container from the area if possible to do so without hazard. Burning liquids may be moved with water in order to protect personnel and minimize property damage.
	Avoid inhaling hazardous vapours and fumes from burning materials. Remove container from fire area if possible and without risk. Water can be used to cool unaffected containers but must be contained for later disposal.
	Do not scatter the material. Dispose of extinguishing agent and spillage in a safe way at a later stage.
	Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. Contain run-off water with, for example, temporary earth barriers.
	Product may generate carbon monoxide, carbon dioxide, sulfur oxides, organic sulfonates, hydrogen chloride during a fire.
Protective clothing:	Full protective clothing and self-contained breathing apparatus
6) Accidental Release Measures:	
Personal precautions:	Isolate the area. For personal protection see Section 8. Keep personnel out of low areas, keep upwind.
Environmental precautions:	Do not contaminate waterways, drains and groundwater. If contamination of waterways, drains, rivers or lakes is unavoidable, warn the local authorities (Police and Department of Water/Environmental affairs) immediately.
Cleaning procedure:	Do not eat, drink or smoke during the clean-up process.
elicalining procedure.	Clear area of unprotected personnel. Ventilate the area of the spill. Eliminate all sources of ignition. Ground and bond all containers and handling equipment.
	Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately.
	Pump with explosion-proof equipment. If available, use foam to smother or suppress.
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	For small spillages: Pick up with a suitable absorbent material (sand, sawdust, kieselguhr, general-purpose binder).



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Disposal:	Dispose of absorbed materials according to local regulations. Collect waste into suitable containers, which can be labelled and sealed. Clean contaminated floors and objects thoroughly with water and a detergent, while observing environmental regulations. Incinerate or take to a special waste disposal site according to local regulations.
7) Handling & Storage:	
Handling:	KEEP OUT OF REACH OF CHILDREN and animals.
	Keep away from heat, sparks and flame. Avoid breathing vapour or mist. Avoid contact with eyes, skin and clothing. Do not swallow. Keep the container closed. Use with adequate ventilation.
	No smoking, open flames or sources of ignition in the handling and storage area. Electrically ground and bond all equipment. The use of non-sparking or explosion – proof equipment may be needed, depending on the type of operation. Containers can retain vapors. Do not cut, drill, grind, weld, or perform similar operation. On or near empty containers. Vapors are heavier than air and may travel long distances and accumulate in low lying areas. Ignition and / or flash back may occur. Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion.
	Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. After work, rinse gloves and remove protective equipment. Wash hands thoroughly with soap and water after handling, and before eating, tobacco use, drinking, or using the toilet.
	Wash contaminated clothing before re-use and separate from household laundry.
Storage:	Store in original container only in a well-ventilated, cool, dry, secure area away from children, foods and animal feeds. Protect from heat, moisture and direct sunlight.
8) Exposure Control / Personal Protection:	
It is essential to provide adequate ventilation. The measures appropriate for a particular work site depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.	Avoid contact with skin, eye and clothing. Closed working clothes are recommended. Take off contaminated clothing immediately. Store work clothing separately. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke at the place of work. Wash hands and/or face before breaks and at the end of the shift.
PERSONAL PROTECTIVE EQUIPMENT:	
Clothing:	Protective clothing chemically resistant to the material, the selection of the specific protection required depends on the activity and the risk of exposure. E.g. face shield, boots, apron or full body suit.
Gloves:	Use gloves chemically resistant to this material. Preferred glove barrier materials include: Polyethylene, ethyl vinyl alcohol laminate, polyvinyl chloride, polyvinyl alcohol, styrene/butadiene rubber, viton. Examples of the acceptable glove barrier materials include: Butyl rubber, chlorinated polyethylene, natural rubber, neoprene,

nitrile/butadiene rubber. The selection of a specific glove



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Eye protection:	for a particular application and duration of use in the workplace should take into account all the relevant work place factors such as (but not limited to) other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protect), potential body reactions to glove materials, as well as the specifications / instructions provided by the glove supplier. Safety goggles with side shields, or face shield.
	Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.
Respiratory protection:	Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there is no applicable exposure limit requirements or guidelines, respiratory protection should be worn when adverse effects such as respiratory irritation or discomfort have been experienced, or as indicated by the risk assessment process. In misty atmospheres, use a an approved particulate respirator. The following should be effective: Organic vapour cartridge with a particulate prefilter.
Emergency eye wash:	Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.
9) Physical & Chemical Properties:	
Form:	Liquid
Colour:	Yellow to brown
Odour:	Characteristic
Odour threshold:	No data available
pH:	5.0-6.0
Melting point / Freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point:	No data available
Evaporation rate:	No data available
Flammability (solid, gas)	
Upper/ lower flammability or explosive limits:	
Vapour pressure:	No data available
Vapour density:	No data available
Relative density:	No data available
Solubility(ies)	Emulsifies in water
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature:	No data available
Viscosity: 10) Stability & Reactivity:	No data available
Reactivity:	No data available
roudinity.	
	110 data dvanasio



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Stable under normal use and standard conditions. Stable for 24 months. Avoid exposure elevated temperatures.

The generation of gas during decomposition can cause pressure in closed systems. The pressure build-up may be rapid. Avoid static discharge.

No decomposition if stored and handled as indicated.

Avoid strong oxidizing agents and alkaline materials.

Possible decomposition products depend on the temperature, air supply and the presence of other materials.

Decomposition products may include (but are not limited to) Hydrogen chloride, organic sulphides, sulfur dioxide.

None known – Store out of direct sunlight and keep away from sources of heat.

Strong acids, strong bases, strong oxidizing agents.

Hazardous decomposition product(s):

Conditions to avoid:

Incompatible materials:

11) Toxicological Information: Based on active ingredients

Acute:

Fluroxypyr-meptyl

Ingestion : Oral LD50 (Rat): > 5,000 mg/kg.
Dermal : LD50 (Rat): > 2,000 mg/kg.
Inhalation : LC50 (Rat, 4 hours): > 1.00 mg/L air.

Eye Contact : Mild Irritant (Rabbit). Skin Contact : Not Irritating (Rabbit).

Skin Sensitization: Not a Sensitizer (Guinea Pig).

Triclopyr

Eye Contact : Mild Irritant (Rabbit).
Skin Contact : Not Irritating (Rabbit).
Skin Sensitization: Not a Sensitizer (Guinea Pig).

12) Ecological Information: Based on active ingredients

Fluroxypyr-meptyl

Birds : Acute oral LD50 for mallard ducks and bobwhite quail >2000 mg/kg. **Fish** : LC50 (96 h) for rainbow trout and golden orfe >solubility limit.

Daphnia: LC50 (48 h) >solubility limit.

Algae : EC50 (96 h) for green algae >solubility limit.

Bees : Not toxic to bees. LD50 (oral and contact, 48 h) >100 μ g/bee.

Worms: LC50 (14 d) for earthworms >1000 mg/kg.

Other aquatic species:

Triclopyr

Birds: Acute oral LD50 for mallard ducks 1698 mg/kg. Dietary LC50 (8 d) for mallard ducks >5000, Japanese quail 3278,

bobwhite quail 2935 mg/kg.

Fish : LC50 (96 h) for rainbow trout 117, bluegill sunfish 148 mg/l. Daphnia: LC50 (48 h) 133 mg/l.

Algae : EC50 (5 d) for Selenastrum capricornutum 45 mg/l.

Bees : Non-toxic to bees; contact LD50 >100 μg/bee.

Other aquatic species:

Environments fate

Fluroxypyr-meptyl



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Animals Hydrolysed to the parent acid, fluroxypyr, which is extensively metabolised and rapidly expired, mainly unchanged, in the urine. Plants Hydrolysed to the parent acid, fluroxypyr. Soil/Environment In laboratory soils, the ester is rapidly converted to fluroxypyr in all soil types, with DT50 <7 d. In soil/water slurries, DT50 2-5 h (pH 6-7, 22-24 °C). Total DT50 for fluroxypyrmeptyl and fluroxypyr acid: soil, aerobic 23 d; aquatic, aerobic 14 d; aquatic, anaerobic 8 d; field dissipation 36.3 d.

Triclopyr

Animals In mammals, following oral administration, excretion is primarily via the urine as the unchanged compound. For details of minor urinary metabolites, see C. Timchalk et al., Toxicology, 1990, 62, 71. Plants In plants, DT50 c. 3-10 d. The main metabolite is 3,5,6-trichloro-2-methoxypyridine. Soil/Environment In soil, fairly rapid degradation by microbial activity, DT50 (ave.) 46 d, depending on soil and climatic conditions. The major degradation product is 3, 5, 6-trichloro-2-pyridinol (which has a soil DT50 of 30-90 d), with a smaller amount of 3, 5, 6-trichloro-2-methoxypyridine. Koc c. 59 ml/g; Kd c. 87 (unaged samples), c. 225 (aged) ml/g

13) Disposal Considerations:

Waste Disposal :

In accordance with local and national regulations. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not contaminate water, food or feed by disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Refer to the product label for instructions. Triple rinse empty containers before disposal in the following manner: Invert the container over the spray or mixing tank and allow to drain for at least 30 seconds after the flow has slowed to a drip. Thereafter, rinse the container three times with a volume of water equal to a third of that of the container volume. Add rinsing to the contents of the spray tank before destroying the container in the prescribed manner. Empty containers should not be burnt; puncture and flatten containers and dispose at a licensed landfill site according to local regulations. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Prevent contamination of water sources, food or feed by disposal. DO NO REUSE THE CONTAINER FOR ANY OTHER PURPOSE. If recycling, replace cap and take containers to the designated recycling point. If containers cannot be recycled, they should be disposed of together with the waste chemical according to local regulations.

14) Transportation Information:

UN NUMBER: 1993

Road Transport ADR/ RID:

Class: 9 Miscellaneous Dangerous Goods

Packaging group: III

Proper shipping name: Flammable liquids, n.o.s. (Triclopyr, Fluroxypyr)

Maritime Transport IMDG / IMO: Road Transport ADR/ RID:

Class: 9 Miscellaneous Dangerous Goods

Packaging group: III

Proper shipping name: Flammable liquids, n.o.s. (Triclopyr, Fluroxypyr)

Class: 9

Packaging group: III

Proper shipping name: Flammable liquids, n.o.s. (Triclopyr, Fluroxypyr)

15) Regulatory Information:

Symbol(s):

Symbol(s): Xn – Harmful.

Xi: irritant.

N: dangerous for the environment.

Risk -phrase(s):

R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed.

R36 Irritating to eyes

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety-phrase(s):

- Keep out of reach of children. S2

S1/2 - Keep locked up and out of the reach of children

\$3/9/49 - Keep only in the original container in a cool, well-ventilated place.

- Keep away from sources of ignition — No smoking. S16

S17 Keep away from combustible material.



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Handle and open container with care.

S20/21 - When using do not eat, drink or smoke.

S23 Do not breathe gas/fumes/vapour/spray

S24/25 - Avoid contact with skin and eyes.

- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S26

S27 - Take off immediately all contaminated clothing.

S36/37/39 – Wear suitable protective clothing, gloves and eye/face protection.

- This material and its container must be disposed of as hazardous waste. S60

- Avoid release to the environment. Refer to special instructions/ Safety data sheets. S61

- If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label. S62

S63 - In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Hazard Statements (s)

16.Other Information

All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date indicated on the present SDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear.

It is the responsibility of persons in receipt of this SDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with this product. If the recipient subsequently produces formulation(s) containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this SDS to their own SDS. The information contained herein is provided in good faith but makes no representation as to its comprehensiveness or accuracy. A properly trained person using this product intends this document only as a guide to the appropriate handling of the material. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

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