


Safety Data Sheet

VISTA FLO

Reg. No: L 8208 (Act No 36 of 1947)

1) PRODUCT AND COMPANY IDENTIFICATION	
Product name:	Vista Flo
Other means of identification	Kresoxim-methyl 500 g/L SC
Chemical Name:	Kresoxim-methyl: (E)--(methoxyimino)-2-[(2-methylphenoxy)methyl]benzeneacetic acid methyl ester
Recommended Use:	Fungicide
Restrictions on use:	Agriculture
UN No:	3082
Distributed by:	MERIDIAN AGRITECH P O BOX 436 MODDERFONTEIN TEL 011 8228509 FAX 011 8223494 MOBILE: 0834006056 www.agritech.co.za
Emergency Number:	POISON CENTRE (UNITAS HOSPITAL) 012 664 1100 TYGERBERG:021 931 6129 RED CROSS 021 689 5227 RAPID SPILL RESPONSE 0800 775 3305
2) HAZARDS IDENTIFICATION	
Classification of the substance/mixture:	Acute Toxicity (Oral) Category 5 Acute Toxicity (Dermal) Category 5 Acute Toxicity (Inhalation) Category 3 Carcinogenicity Category 2 Aquatic Acute Category 1 Aquatic Chronic Category 1
Label Elements: Globally Harmonized System, EU (GHS):	<p>Pictograms:</p>  <p>Signal word: Warning</p> <p>Hazard Statements: H302: Harmful if swallowed. H351: Suspected of causing cancer. H400: Very toxic to aquatic life. H410: Very toxic to aquatic life with long-lasting effects.</p> <p>Precautionary Statements: P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P262: Do not get in eyes, on skin, or on clothing. P270: Do not eat, drink or smoke when using the product. P272: Contaminated work clothing should not be allowed out of the workplace. P273: Avoid release to the environment. P280: Wear protective gloves, protective clothing, eye protection. P321: Specific treatment (See First aid measures on this label)</p>

<p>According to Directive 67/548/EEC No. 1272/2008 [CLP]:</p>	<p>P362+P364: Take off contaminated clothing and wash it before reuse. P405: Store locked up.</p> <p>Hazard Symbol(s): Xn – Harmful N – Dangerous for the environment</p> <p>R-phrases(s): R40: Limited evidence of a carcinogenic effect. R50/53: Very toxic to aquatic organisms, may cause long term adverse effects in aquatic environments.</p> <p>S-phrases(s): S2: Keep out of reach of children. S7: Keep container tightly closed. S13: Keep away from food, drink and animal feeding stuffs. S20/21: When using, do not eat drink or smoke. S35: This material and its container must be disposed of in a safe way. S57: Use appropriate containment to avoid environmental contamination. S60: This material and its container must be disposed of as hazardous waste.</p>
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3) COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances:

Not applicable

3.2 Mixtures:

Chemical name	Concentration	CAS No.	EC No.	Classification according to Regulation EC 1272/2008 (CLP)
Kresoxim-methyl	500 g/L	143390-89-0	604-351-6	Carc. Cat. 2 (H351) Aquatic Acute Cat. 1 (H400) Aquatic Chronic Cat. 1 (H410)
Ethylene glycol	5%	107-21-1	203-473-30	Acute Tox. Cat. 4 (H302)

4) FIRST AID MEASURES


Inhalation:	Remove patient to fresh air. Loosen clothing around neck. Lie down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance immediately.
Skin contact:	Immediately remove contaminated clothing and flush body and clothes with large amounts of water and soap. Wash contaminated clothing before re-use. Seek medical assistance if irritation persists.
Eye contact:	Flush eyes with plenty of water for at least 15 minutes holding eyelids open. Remove contact lenses. Seek medical assistance immediately.
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. For advice, contact the National Poisons Centre. Seek medical assistance immediately. Administer activated charcoal. If patient is conscious, rinse mouth out and drink plenty of water.
Most important symptoms and effects, both acute and delayed:	None known.
Indication of any immediate medical attention and special treatment needed:	There is no known antidote. Treat symptomatically and give supportive therapy.

5) FIRE-FIGHTING MEASURES

Extinguishing Media:	Water fog, foam, carbon dioxide or dry chemical.
Unsuitable Extinguishing Media:	Do not use high volume water jet, due to contamination risk.

<p>Specific Hazards arising from the substance/mixture:</p> <p>Fire Fighting:</p> <p>Protective clothing:</p>	<p>If involved in a major fire, could evolve oxides of carbon or nitrogen.</p> <p>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.</p> <p>Avoid inhaling hazardous vapours and fumes from burning materials. Keep upwind. 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. Bund area with sand or earth to avoid pollution of waterways. Water can be used to cool containers. Dispose of extinguishing agent and spillage in a safe way at a later stage. If area is heavily exposed to fire and if conditions permit, let the fire burn itself out since water may increase the area contaminated.</p> <p>Full protective clothing and self-contained breathing apparatus</p>
<p>6) ACCIDENTAL RELEASE MEASURES</p>	
<p>Personal precautions, protective equipment and emergency procedures:</p> <p>Environmental precautions:</p> <p>Methods and material for containment and cleaning up:</p>	<p>Avoid contact with skin and eyes. For personal protection see Section 8.</p> <p>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.</p> <p>Do not eat, drink or smoke during the clean-up process. Clear area of unprotected personnel. Wear protective gear: goggles. Half face-piece respirator with combined dust and vapour cartridge, full length clothing and PVC gloves. Keep people and animals away. Reposition leaking containers to minimize further leakage.</p> <p>Contain spill and collect and store in properly labelled, tightly closing drums for safe disposal. Treat contaminated areas with water containing soda or detergent. Seal drums and label ready for later disposal.</p> <p>Dike spill area and collect washings to avoid any contamination of surface and ground water, water supplies and drains. Heavily contaminated soil layers should be removed and disposed of in an approved way. Rinse the spill area and any tools or implements several times with soapy water. Contain and adsorb the rinsate with inert absorbents and place into the same disposal container as the spill material. Notify regulatory authorities if necessary.</p>
<p>7) HANDLING & STORAGE</p>	
<p>Precautions for Safe Handling:</p> <p>Conditions for Safe Storage, including any incompatibilities:</p>	<p>Avoid skin and eye contact as this product will irritate. Thus Harmful if swallowed. Wash hands thoroughly with soap and water before breaks and immediately after handling the product. Do not eat, drink, smoke or apply cosmetics when there is a possibility of exposure to the product. Wash goggles or face shield and contaminated clothing thoroughly after each day's use. When opening the container wear the following protection: Elbow length PVC gloves Wash gloves after each days use. Wash hands after use.</p> <p>Do NOT contaminate dams, rivers or streams, or any other water bodies with pesticide or used containers. Do not apply if heavy rains are imminent.</p> <p>Store in original container tightly closed and in a locked, dry, cool, well-ventilated out of direct sunlight. Protect from temperatures above 40°C. Properties of the product may change if stored above this temperature for extended periods. Avoid extreme heat and cold. Decomposes at elevated temperatures. Store away from foodstuffs, fertilisers and seeds. Keep away from children or uninformed persons. DO NOT store in direct sunlight for prolonged periods.</p>

8) EXPOSURE CONTROL / PERSONAL PROTECTION	
<p>Appropriate Engineering Controls:</p> <p>Control Parameters: Occupational exposure limits:</p> <p><u>PERSONAL PROTECTIVE EQUIPMENT:</u></p> <p>Clothing:</p> <p>Respiratory protection:</p> <p>Gloves:</p> <p>Eye protection:</p> <p>Emergency eye wash:</p>	<p>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.</p> <p>Not established</p> <p>Consult supplier to confirm that the equipment is suitable.</p> <p>Cotton overalls buttoned to the neck and wrist and a washable hat.</p> <p>Handle in well ventilated areas, generally natural ventilation is adequate.</p> <p>Elbow length PVC gloves.</p> <p>Face shield.</p> <p>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.</p>
9) PHYSICAL & CHEMICAL PROPERTIES	
Appearance:	White to beige liquid
Odour:	Mild aromatic odour
Solubility:	Suspends in water
pH:	6.8
Odour threshold:	Not available
Melting point / Freezing point	97 – 102
Initial boiling point and boiling range	Not available
Flash point:	Does not flash
Evaporation rate:	2.3 µPa (20°C)
Flammability (solid, gas)	Not flammable
Upper/ lower flammability or explosive limits:	Not available
Vapour pressure:	Not available
Vapour density:	Not available
Relative density:	1.11 – 1.14 g/L
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature:	Not available
Decomposition Temperature:	Not available
Viscosity:	Not available
10) STABILITY & REACTIVITY	
<p>Reactivity:</p> <p>Chemical Stability:</p> <p>Possibility of hazardous reactions:</p> <p>Conditions to avoid:</p> <p>Incompatible materials:</p> <p>Hazardous decomposition product(s):</p>	<p>No hazardous reactions when stored and handled as recommended. Stable under recommended storage conditions.</p> <p>When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture.</p> <p>No hazardous reactions if stored and handled as indicated.</p> <p>Protect from sunlight, open flames, sources of heat. Decomposes upon heating.</p> <p>Strong bases, oxidizing agents.</p> <p>High temperatures of fire may produce irritating gases & vapors (CO₂, CO, NO_x).</p>
11) TOXICOLOGICAL INFORMATION	
<p>Acute Toxicity:</p> <p>Oral:</p> <p>Dermal:</p> <p>Inhalation:</p> <p>Skin Corrosion/Irritation:</p> <p>Serious Eye Damage/Irritation:</p> <p>Respiratory or Skin Sensitization:</p>	<p>LD₅₀ (rat) >2,000 mg/kg LD₅₀ (rat) >2,000 mg/kg LC₅₀ (rat) (4hr) >5.6 mg/l</p> <p>Not an irritant.</p> <p>Not an irritant.</p> <p>Did not cause sensitization on laboratory animals, guinea pig.</p>

Germ Cell Mutagenicity:	No data available
Carcinogenicity:	Suspected of causing cancer.
Reproductive Toxicity:	No data available
STOT-SE:	No data available
STOT-RE:	No data available
Aspiration Hazard:	No data available
12) ECOLOGICAL INFORMATION	
Ecotoxicity: Birds: Fish: Daphnia: Algae: Worms: Bees:	LD ₅₀ (14 d) for quail >2150 mg/kg. LC ₅₀ (8 d) for bobwhite quail and mallard ducks >5000 ppm. LC ₅₀ (96 h) for bluegill sunfish 0.499 mg/l, rainbow trout 190 ppb. EC ₅₀ (48 h) 0.186 mg/l. EC ₅₀ (0–72 h) for <i>Ankistrodesmus bibraianus</i> 63 µg/l. LC ₅₀ >937 mg/kg. LD ₅₀ (48 h) (oral) 14 µg/bee; (contact) >20 µg/bee.
Persistence and Degradability:	Rapidly degraded; in aerobic soil, or under aerobic or anaerobic aquatic metabolism, DT ₅₀ <1 d. In soil, DT ₉₀ (lab.) <3 d; the main metabolite is the corresponding acid.
Bio-accumulative Potential:	Animals Orally administered test compound was widely distributed and quickly eliminated (c. 90% within 2 d); there was no bioaccumulation. The major routes of excretion were feces and urine.
Mobility in Soil:	Very mobile in soil; K _{oc} 219–372; K _{oc} of the acid 17–24. However, in lysimeter studies, only low levels of kresoxim-methyl and its metabolite were found in leachates.
13) DISPOSAL CONSIDERATIONS	
Waste Disposal:	In accordance with local and national regulations. Must be disposed of at an appropriate disposal facility. Do not contaminate water, food or feed by disposal. Wastes resulting from the use of this product may be disposed of at an approved chemicals waste disposal facility.
Container Disposal:	Triple or pressure rinse containers before disposal. Do not dispose of undiluted chemical on-site. If recycling, close container and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation or tree roots. Empty containers and product should not be burnt. Dispose of waste product at a reputable waste disposal contractor.
14) TRANSPORTATION INFORMATION	
Road Transport ADR / IRD:	UN NUMBER: 3082 UN Proper Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, Liquid, N.O.S. (Kresoxim-methyl) Transport Hazard Class: 9 Miscellaneous Dangerous Goods Packaging group: III Labelling no: 9 Environmental Hazards: Not applicable Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.
Maritime Transport IMDG / IMO:	UN NUMBER: 3082 UN Proper Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, Liquid, N.O.S. (Kresoxim-methyl) Transport Hazard Class: 9 Miscellaneous Dangerous Goods Packaging group: III Labelling no: 9 Environmental Hazards: Marine Pollutant Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling. 
Air Transport ICAO / IATA:	UN NUMBER: 3082

	UN Proper Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, Liquid, N.O.S. (Kresoxim-methyl) Transport Hazard Class: 9 Miscellaneous Dangerous Goods Packaging group: III Labelling no: 9 Environmental Hazards: Not applicable Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.
Transport in Bulk (according to Annex II of MARPOL 73/78 and the IBC Code):	No transport in bulk according to the IBC Code.
15) REGULATORY INFORMATION	
Safety, health and environmental regulations/legislation specific for the substance/mixture:	For the user of this plant-protective product applies: 'To avoid risks to man and the environment, comply with the instructions for use.' (Directive 1999/45/EC, Article 10, No. 1.2)
Chemical Safety Assessment:	Advice on product handling can be found in sections 7 and 8 of this safety data sheet.
16) OTHER INFORMATION	
<p>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.</p> <p>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.</p> <p>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.</p> <p>MERIDIAN AGRITECH MAKES NO REPRESENTATION OR WARRANTIES, EITHER EXPRESSES OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANT ABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, MERIDIAN AGRITECH (PTY) LTD WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.</p> <p>Date of issue: 03/08/2005 Date of revision: 22/04/2016, 28/01/2021</p> <p>Abbreviations and acronyms:</p> <ol style="list-style-type: none"> 1. CAS number: Chemical Abstracts Service number. 2. CLP: Classification, Labelling, Packaging. 3. LD₅₀: Lethal Dose for 50% of the test population. 4. LC₅₀: Lethal Concentration for 50% of the test population. 5. DT₅₀: Half-life. 6. GHS: Globally Harmonised System (of Classification and Labelling of Chemicals). 7. STOT: Specific Target Organ Toxicity 8. SE: Single exposure 9. RE: Repeated exposure <p>Literature References:</p> <ul style="list-style-type: none"> • GHS: www.ccohs.ca/oshanswers/chemicals/ghs.html • ECHA: https://echa.europa.eu/search-chemicals 	