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

Safety Data Sheet

CLOUT XTRA - Reg. No: L10466 (Act No 36 of 1947)

1) PRODUCT AND COMPANY IDENTIFICATION Product name: CLOUT XTRA			
Other means of identification:	Carbendazim 125 g/L, Flusilazole 250 g/L SC		
Chemical Name:	Carbendazim: methyl benzimidazol-2-ylcarbamate Flusilazole: 1-[[bis(4-fluorophenyl)(methyl)silyl]methyl]-1 <i>H</i> -1,2,4-triazole, bis(4-fluorophenyl)(methyl)(1 <i>H</i> -1,2,4-triazol-1-ylmethyl)silane		
Recommended use:	Fungicide		
Restrictions on use:	Agriculture		
UN No:	3082		
Distributed by:	MERIDIAN AGRITECH P O BOX 436 MODDERFONTEIN TEL 011 8228509 FAX 0866901386 MOBILE: 0834006056 www.agritech.co.za		
Emergency Number:	POISON CENTRE (UNITAS HOSPITAL) 012 664 1100 WESTERN CAPE POISONS TELEPHONE SERVICE 086 555 777 RAPID SPILL RESPONSE 0800 775 3305 GRIFFON POISON CENTRE: 082 446 8946		
2) HAZARDS IDENTIFICATION Classification of the substance/mixture:	Acute Toxicity (Oral) Category 4		
	Acute Toxicity (Dermal) Category 4 Carcinogenicity Category 2 Mutagenicity Category 1B Reproductive Toxicity Category 1B Aquatic Acute Category 1 Aquatic Chronic Category 1		
Label Elements: Globally Harmonized System, EU (GHS):	Pictograms:		
	Signal Word: Danger Hazard Statements: H302: Harmful if swallowed. H340: May cause genetic defects. H351: Suspected of causing cancer. H360: May damage fertility or the unborn child. H400: Very toxic to aquatic life. H410: Very toxic to aquatic life with long-lasting effects. H411: Toxic to aquatic life with long-lasting effects.		
	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.

P263: Avoid contact during pregnancy or while nursing. **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)

P362+P364: Take off contaminated clothing and wash it before reuse.

P405: Store locked up.

According to Directive 67/548/EEC No. 1272/2008 [CLP]

Hazard Symbol(s):

Xn – dangerous to health

Xi - Irritant

N – dangerous for the environment

R-phrase(s):

R22: Harmful if swallowed R36: Irritating to eyes. R38: Irritating to skin

R40: Limited evidence of a carcinogenic effect.

R41: Risk of serious damage to eyes. **R46:** May cause heritable genetic damage.

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

R60: May impair fertility.

R61: May cause harm to the unborn child.

S-phrase(s):

\$1/2: Keep locked up and out of the reach of children.

S13: Keep away from food, drink and animal feedingstuffs.

\$20/21: When using do not eat or drink

\$36/37: Wear suitable protective clothing and gloves.

S45: In case of accident or if you feel unwell, seek medical advice immediately (Show the label where possible)

S53: Avoid exposure – obtain special instructions before use.

S57: Use appropriate container to avoid environmental contamination.

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

S61: Avoid release to the environment. Refer to special instructions/Safety datasheets.

3) COMPOSITION / INFORMATION ON INGREDIENTS

Mixture:

Chemical name	Composition (g/L)	CAS No.	EC No.	Classification
Carbendazim	250	10605-21-7	234-232-0	Muta. Cat. 1B (H340) Aquatic Acute Cat. 1 (H400) Aquatic Chronic Cat. 1 (H410) Repr. Cat. 1B (H360FD)
Flusilazole	125	85509-19-9	617-717-5	Acute Tox. Cat. 4 (H302) Carc. Cat. 2 (H351) Aquatic Chronic Cat. 2 (H411) Repr. Cat. 1B (H360D)
Monoethylene Glycol	42.60	107-21-1		Acute Tox. 4 (H302)

4) FIRST AID MEASURES

Eye contact: Immediately flush eyes with plenty of water. Remove contact lenses, if worn, and flush eyes with water for at least 20 minutes holding eyelids open. Seek medical assistance immediately. Skin contact: Remove contaminated clothing, leather items and shoes and gently wipe off excess chemical. Wash affected areas thoroughly with non-abrasive soap and water. Do not rub the skin. Seek medical attention if irritation persists. Wash contaminated clothing before re-use. Ingestion: If swallowed **DO NOT** induce vomiting unless advised to do so by a medical practitioner. Never give anything via mouth to an unconscious person. Seek medical advice immediately. If the victim is conscious rinse mouth with water and let them drink 1-2 glasses of water. Inhalation: Remove victim to well ventilated area and loosen clothing around the neck. Keep victim warm and at rest. Qualified personnel should administer oxygen if breathing is difficult. Immediately seek medical attention. Symptoms could include headache, faintness, fatigue, Most important symptoms and effects, both acute and delayed: giddiness, excessive sweating, nausea, abdominal pains, vomiting, diarrhea, anxiety, and tightness of the chest, blurred vision, muscle twitching (beginning in the eyelids and the tip of the tongue), small pupils, respiratory distress, convulsions, and coma. Indication of any immediate medical attention and Symptomatic treatment and supportive therapy as indicated, no known specific antidote. special treatment needed: 5) FIRE-FIGHTING MEASURES Water spray, alcohol-resistant foam, carbon dioxide (CO₂), Suitable extinguishing media: dry powder. Unsuitable extinguishing media: Water jet, due to contamination/spreading risk. Special hazards arising from the substance or mixture: Hazardous decomposition products form during fire conditions, such as carbon dioxide (CO₂) and nitrogen oxides (NO_x) Fire Fighting: Remove spectators from surrounding area. Use a recommended extinguishing agent. Fight fire from a maximum distance using unmanned hose holders or monitor nozzles. Remove container from affected area if possible without risk. Dike extinguishing media with sand or earth for later disposal, do not allow to reach water or sewer systems. Dispose of debris and contaminated extinguishing water according to regulations. Water can be used to cool unaffected containers but must be contained for later disposal. Avoid pollution of waterways and ground water. Fire may produce irritating or poisonous vapours, mists or other products of combustion. Avoid breathing fumes. Protective clothing: Fire-fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus. 6) ACCIDENTAL RELEASE MEASURES Personal precautions, protective equipment and Control access to area. Take precautionary action against emergency procedures: static discharges. Do not inhale vapour or spray. Avoid contact with skin and eyes. For personal protection see section 8. **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.

Methods and material for containment and cleaning up:

Do not eat, drink or smoke during the clean-up process. Clear area of unprotected personnel and animals. Wear protective gear as mentioned in section 8 below. Contain the spill and stop leak provided it is safe to do so. Soak up minor spills with suitable absorbent, non-combustible material such as sand, sawdust, diatomaceous earth, etc. Shovel or sweep absorbed material and collect in a suitable container which can be labelled and sealed for disposal according to local regulations. Do not flush spilled material into drains or waterways. Should spilled product come into contact with water, dike water and dispose of together with spilled material. Clean contaminated areas and equipment thoroughly with water containing detergent and collect washings for disposal. For large spills, dike spill area and pump off product. Collect washings to avoid any contamination of surface and ground water, water supplies and drains. Deal with spillages immediately. Used absorbent material and washings should be stored in labelled, sealable containers until these can be disposed of according to local regulations. Open burning or dumping of this material is prohibited.

7) HANDLING & STORAGE

Precautions for Safe Handling:

Avoid contact with eyes and skin. Do not breathe in fumes or spray. Ensure adequate ventilation. Suitable protective equipment should be used as a preventative measure during spraying and mixing. Do not eat, drink, smoke or apply cosmetics while using. Before removing gloves, clean thoroughly with a non-abrasive soap and water. Wash hands thoroughly with non-abrasive soap and water after handling, and before eating, tobacco use, drinking, or using the toilet. Protective clothing should be removed immediately after use washed before reuse. Do not apply directly to areas where surface water is present or to intertidal areas below the mean high water mark. Dispose of water used to clean equipment suitably to avoid contamination of water sources.

Conditions for Safe Storage, including any incompatibilities:

Keep away from heat and sources of ignition. Avoid static electrical discharge.

Store under lock and key in original container tightly closed and in a dry, cool, well-ventilated area. Store away from sources of ignition and away from foodstuffs, fertilisers and seeds. Keep away from children, uninformed persons and animals. Do not contaminate other pesticides, fertilisers, water, food or feed by storage or disposal. Local regulations should be complied with.

8) EXPOSURE CONTROL / PERSONAL PROTECTION

Appropriate Engineering Controls:

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. Ensure that electrical equipment is explosion-free and free from ignition sources.

Control Parameters: Occupational exposure limits:

None known.

PERSONAL PROTECTIVE EQUIPMENT:

Clothing:

Employee must wear appropriate full protective (impervious) clothing, including rubber boots, to prevent prolonged skin exposure with this substance.

Gloves:

Employee must wear appropriate chemical-resistant gloves, preferably PVC or nitrile gloves, to prevent prolonged skin contact with this substance.

	T
Eye protection:	The use of safety goggles or full-face shield is recommended.
Respiratory protection:	Wear suitable respiratory equipment, especially during spraying, such as a face mask.
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	
Appearance:	Cream liquid
Odour:	Characteristic
Solubility:	Emulsifiable
pH:	6 – 8.5
Odour threshold:	No data available
Melting point / Freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point:	>100°C
Evaporation rate:	No data available
Flammability (solid, gas)	Not flammable
Upper/ lower flammability or explosive limits:	Not explosive
Vapour pressure:	No data available
Vapour density:	No data available
Relative density:	1.07 g/ml
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature:	No data available
Decomposition Temperature:	No data available
Viscosity:	No data available
10) STABILITY & REACTIVITY Reactivity:	No hazards to be specifically mentioned.
reductivity.	Two mazards to be specimeany memioried.
Chemical Stability:	When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture. Thermally and chemically stable.
Possibility of hazardous reactions:	None known.
Conditions to avoid:	Protect from sources of heat and frost.
Incompatible materials:	Oxidizing agents, acids and bases
Hazardous decomposition product(s):	Hydrogen fluoride – decomposes by reaction with alkaline solutions.
11) TOXICOLOGICAL INFORMATION:	
Acute Toxicity:	
Oral:	LD50 > 2 000 mg/kg, rat.
Dermal:	LD50 > 2 000 mg/kg, rat.
Inhalation:	LC50 (4h), rat: Carbendazim > 5.6 mg/L Flusilazole > 5.0 mg/L
Skin Corrosion/Irritation:	May cause mild to moderate irritation after prolonged contact.
Serious Eye Damage/Irritation:	Not an irritant, rabbit.
Respiratory or Skin Sensitization:	Not a sensitizer, Guinea pig.
Germ Cell Mutagenicity:	Non-mutagenic.
Carcinogenicity: Reproductive Toxicity:	Limited evidence of a carcinogenic effect May impair fertility.
Top. Judout o Tokiony.	May cause harm to the unborn child
STOT-SE:	No data available
STOT-RE:	No data available
Aspiration Hazard: 12) ECOLOGICAL INFORMATION	No data available
Ecotoxicity:	
Birds:	Carbendazim: Acute oral LD50 for quail 5 826-15 595 mg/kg. Flusilazole: Acute oral LD50 mallard ducks >1590 mg/kg
Fish:	Carbendazim: LC50 (96h) carp 0.61 mg/L, rainbow trout 0.83 mg/L, bluegill sunfish >17.25 mg/L, guppies >8 mg/L Flusilazole: LC50 (96h) Rainbow trout 1.2 mg/L, bluegill

	sunfish 1.7 mg/L
Daphnia:	Carbendazim: LC50(48h) 0.13-0.22 mg/L.
Algae:	Flusilazole: LC50(48h) 3.4 mg/L Carbendazim: Algae - EC50(72h) for Scenedesmus
Aigae.	subspicatus 419 mg/L, Selenastrum capricornutum 1.3 mg/L
Worms:	Carbendazim: LC50 (4w) for Eisenia foetida 6 mg/kg dry soil.
Bees:	Carbendazim: Contact LD50 > 50 ug/bee Flusilazole: LD50 > 150 ug/bee
Persistence and Degradability:	Carbendazim: 2-Aminobenzimidazole has been found as a minor metabolite. DT ₅₀ in soil 8–32 d under outdoor conditions. Carbendazim decomposes in the environment, DT ₅₀ 6–12 mo on bare soil, 3–6 mo on turf, and 2–25 mo in water under aerobic and anaerobic conditions, respectively. It is mainly decomposed by micro-organisms. Flusilazole: Average DT ₅₀ 95 days.
Bio-accumulative Potential:	Not considered to be persistent, bioaccumulating or toxic.
Mobility in Soil:	Carbendazim: K₀c 200–250.
13) DISPOSAL CONSIDERATIONS	Wests should not be re used. Do not conteminate rivers
Waste Disposal:	Waste should not be re-used. Do not contaminate rivers, dams, water sources, food or feed by disposal. Open dumping or burning of this pesticide is prohibited. Wastes resulting from the use of this product should be disposed of according to local regulations. Must be incinerated in a suitable incineration plant holding a permit from competent authorities.
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. 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	LINIAH IMPER. 2000
Road Transport ADR / IRD:	UN NUMBER: 3082 UN Proper Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Flusilazole, Carbendazim) Transport Hazard Class: 9 Miscellaneous Dangerous Goods Packaging group: III Labelling no: 9 Environmental Hazards: Not applicable
	Special Precautions for User: Read safety instructions,
Maritime Transport IMDG / IMO:	SDS and emergency procedures before handling. UN NUMBER: 3082 UN Proper Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Flusilazole, Carbendazim) 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:	Not classified as dangerous in the meaning of air transport regulations – Optional classification as per IATA Special Provision A97.
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

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.

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Abbreviations and acronyms:

- 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

Literature References:

- GHS: www.ccohs.ca/oshanswers/chemicals/ghs.html
- ECHA: https://echa.europa.eu/search-chemicals