


Safety Data Sheet

CLOUT CM - Reg. No: L 8281 (Act No 36 of 1947)

1) PRODUCT AND COMPANY IDENTIFICATION	
Product name:	CLOUT CM
Other means of identification:	Carbendazim 125 g/L + Flusilazole 250 g/L
Chemical Name:	Carbendazim: methyl benzimidazole-2-ylcarbamate Flusilazole: bis(4-fluorophenyl)(methyl)(1H-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 (OR POISONS HELPLINE): 0861 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 STOT RE Category 2 Aquatic Acute Category 1 Aquatic Chronic Category 1
Label Elements: Globally Harmonized System, EU (GHS):	<p>Pictograms:</p>  <p>Signal Word: Danger</p> <p>Hazard Statements: H302: Harmful if swallowed. H312: Harmful in contact with skin. H340: May cause genetic defects. H351: Suspected of causing cancer. H360: May damage fertility or the unborn child. H373: May cause damage to organs through prolonged or repeated exposure. 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.</p> <p>Precautionary Statements: P201: Obtain special instructions before use.</p>

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

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.

Hazard Symbol(s):

Xn – dangerous to health
Xi - Irritant
N – dangerous for the environment

R-phrases(s):

R22: Harmful if swallowed
R36: Irritating to eyes.
R40: Limited evidence of a carcinogenic effect.
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-phrases(s):

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S35: This material and its container must be disposed of in a safe way
S36/37: Wear suitable protective clothing and gloves.
S45: In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).
S53: Avoid exposure - obtain special instructions before use.
S57: Use appropriate containment 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 Data Sheets

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)
Carbendazim	125 g/L	10605-21-7	234-232-0	Acute Tox Cat. 4 (H312) Carc. Cat. 2 (H351) Muta. Cat. 1B (H340) Repr. Cat. 1B (H360) STOT RE Cat. 2 (H373) Aquatic Acute Cat. 1 (H400) Aquatic Chronic Cat. 1 (H410)
Flusilazole	250 g/L	85509-19-9	617-717-5	Acute Tox. Cat. 4 (H302) Carc. Cat. 2 (H351) Repr. Cat. 1B (H360) Aquatic Chronic Cat. 2 (H411)

4) FIRST AID MEASURES

<p>Description of First-Aid Measures:</p> <p>Inhalation:</p> <p>Skin contact:</p> <p>Eye contact:</p> <p>Ingestion:</p> <p>Most important symptoms and effects, both acute and delayed:</p> <p>Indication of any immediate medical attention and special treatment needed:</p>	<p>Remove patient to fresh air. 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.</p> <p>Immediately flush body and clothes with large amounts of water. Remove contaminated clothing and footwear. Wash affected areas with soap and water. Do not rub skin. Seek medical assistance.</p> <p>Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Seek medical assistance if irritation persists.</p> <p>Never give anything by mouth to an unconscious person. If swallowed do NOT induce vomiting. Repeatedly administer medicinal charcoal in large quantities of water. For advice, contact the National Poisons Centre. Seek medical assistance immediately.</p> <p>Inhalation may cause: Dizziness, irritation. Eye contact may cause: Irritation. Skin contact may cause: Local irritation. Ingestion may cause: Vomiting, Diarrhoea.</p> <p>Treat symptomatically. Do not give ephedrine or related drugs.</p>
5) FIRE-FIGHTING MEASURES	
<p>Extinguishing Media:</p> <p>Unsuitable Extinguishing Media:</p> <p>Specific Hazards arising from the substance/mixture:</p> <p>Fire Fighting:</p> <p>Protective clothing:</p>	<p>Fine water spray, foam, carbon dioxide.</p> <p>Do not use high volume water jet, due to contamination risk.</p> <p>Generating poisonous and corrosive fumes containing: carbon monoxide, nitrogen oxides and hydrochloric acid.</p> <p>UNUSUAL FIRE OR EXPLOSION HAZARDS: Take extra care if mixed with chlorine releasing compounds - increased skin irritancy</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. 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. Avoid pollution of waterways.</p> <p>Full protective clothing and self-contained breathing apparatus</p>
6) ACCIDENTAL RELEASE MEASURES	
<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. Do not breathe in spray or fumes. For personal protection see Section 8.</p> <p>Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. Do not allow to enter drains or watercourses. If contamination of water courses is unavoidable, report to the Police and the Department of Water/Environmental Affairs immediately.</p> <p>Wear protective clothing. Clear area of unprotected personnel. Contain and absorb liquid spills with inert material, remove by scoop or vacuum. Use approved industrial vacuum cleaner for removal and place in waste</p>

	containers. Wash area with water and detergent and absorb with further inert material. If spill does enter waterways contact the local authority. Spilled product cannot be re-used and must be disposed of by incineration or disposal in a chemical waste disposal facility. If containers cannot be recycled, they should be disposed of together with the waste chemical.
7) HANDLING & STORAGE	
Precautions for Safe Handling:	Avoid skin and eye contact and inhalation of spray mist. Keep away from heat and sources of ignition. APPROVED HANDLER: This product must be under the control of an approved handler when applied in a wide dispersive manner; or used by a commercial contractor. Spills may be slippery and should be cleaned up immediately. TRACKING: Is not required BEWARE: Spray drift hazard. Apply this product carefully. Spray drift may cause serious damage to other desirable plants.
Conditions for Safe Storage, including any incompatibilities:	Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs, fertilisers and seeds. Keep away from children or uninformed persons.
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.
Control Parameters: Occupational exposure limits:	None known.
<u>PERSONAL PROTECTIVE EQUIPMENT:</u>	
Clothing:	Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance. Respiratory protection: Respirator with filter for organic vapour. Hygiene measures: Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke. Wash contaminated clothing before re-use.
Gloves:	Employee must wear appropriate chemical-resistant gloves to prevent contact with this substance
Eye protection:	The use of safety goggles with side shields is recommended.
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:	Off-white, beige liquid
Odour:	Sweet odour
Solubility:	Completely miscible in water
pH:	8.2 at 10 g/l (20 °C)
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)	No data available
Upper/ lower flammability or explosive limits:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Relative density:	No data available
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.
Chemical Stability:	When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture. Incompatible or can react with bases.
Possibility of hazardous reactions:	None known.
Conditions to avoid:	Temperatures < 0 °C. Protect from frost. In order to avoid thermal decomposition, do not overheat. Heating may release hazardous gases.
Incompatible materials:	Oxidising agents. Bases.
Hazardous decomposition product(s):	Carbon oxides, nitrogen oxides (NOx), hydrogen fluoride. Heating can release vapours which can be ignited. Fluorocarbons. Decomposes by reaction with alkaline solutions.
11) TOXICOLOGICAL INFORMATION	
Acute Toxicity:	
Oral:	LD50 > 2 000 mg/kg, rat.
Dermal:	LD50/rat : > 2 000 mg/kg
Inhalation:	LC50 (4h) > 5.2 mg/l, rat.
Skin Corrosion/Irritation:	Mild irritant.
Serious Eye Damage/Irritation:	Mild irritant.
Respiratory or Skin Sensitization:	Did not cause sensitization on laboratory animals.
Germ Cell Mutagenicity:	Carbendazim has showed mutagenic effects and may cause heritable genetic damage. Flusilazole was negative in mutagenicity tests.
Carcinogenicity:	Increased incidences of tumors were observed during studies using Carbendazim. Flusilazole was shown to be a weak carcinogen at high exposure levels.
Reproductive Toxicity:	Flusilazole: Experiments have shown reproductive toxicity effects on laboratory animals. Presumed a human reproductive toxicant. Carbendazim: Experiments have shown reproductive toxicity effects on laboratory animals. Presumed a human reproductive toxicant.
STOT-SE:	No data available
STOT-RE:	The following effects occurred at levels of exposure that significantly exceed those expected under labelled usage conditions: Oral – feed multiple species. Liver effects.
Aspiration Hazard:	No data available
12) ECOLOGICAL INFORMATION	
Ecotoxicity:	
Birds:	Carbendazim: LD50 Quail > 5000 g/kg. Flusilazole : LD50 Mallard duck > 1500 g/kg
Fish:	Carbendazim : LC50 (96h) Rainbow trout 0.83 mg/L. Flusilazole : LC50 (96h) Rainbow trout 1.2 mg/L.
Daphnia:	Carbendazim: LC50 (48h) 0.13 – 0.22 mg/L. Flusilazole : LC50 (48h) 3.4 mg/L.
Algae:	EC50 (72h) Selenastrum capricornutum: 419 mg/L.
Worms:	Carbendazim: LC50 (4w) 6mg/kg soil. Flusilazole : No data.
Bees:	Carbendazim: LD50 > 50 ug/bee. Flusilazole : LD50 > 150 ug/bee.
Persistence and Degradability:	Carbendazim: DT50 = 8 – 32 days. Flusilazole: DT50 = 95 days.
Bio-accumulative Potential:	Does not bioaccumulate.
Mobility in Soil:	Not expected to be mobile in soils.
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. Container Refilling and Disposal: If the container is to be refilled, do not rinse with any material or introduce any pesticide other than this product. DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE. Do not transport if this container is damaged or leaking
14) TRANSPORTATION INFORMATION	
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, SDS and emergency procedures before handling.
Maritime Transport IMDG / IMO:	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:	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, 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. 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 EXPRESSED 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</p>	

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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>