


Safety Data Sheet

ANTAGON L 8842 (Act 36 of 1947)

1) PRODUCT AND COMPANY IDENTIFICATION	
Product name:	ANTAGON
Other means of identification:	Dodine 400 SC
Chemical Name:	1-dodecylguanidinium acetate
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 TYGERBERG: 021 931 6129 RED CROSS: 021 689 5227 RAPID SPILL RESPONSE 0800 775 3305 GRIFFON POISON CENTRE: 082 446 8946.
2) HAZARDS IDENTIFICATION:	
Classification of the substance / mixture:	GHS: Oral Category: 4 Dermal Category: 5 Aquatic Chronic Category 2
Label Elements: Globally Harmonized System, EU (GHS):	<p>Pictogram:</p>  <p>Signal Word: Warning</p> <p>Hazard Statements: H302: Harmful if swallowed. H315: Causes skin irritation. H319: Causes serious eye irritation. 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.</p>

According to Directive 67/548/EEC No. 1272/2008 [CLP]	<p>P321: Specific treatment (See First aid measures on this label)</p> <p>P362+P364: Take off contaminated clothing and wash it before reuse.</p> <p>P405: Store locked up.</p> <p>Hazard symbols: N: Dangerous for the environment</p> <p>R-phrases(s): R51/53: Toxic to aquatic organisms may cause long term effects in the aquatic environment.</p> <p>S-Phrase(s): S35: This material and its container must be disposed of in a safe way. S57: Use appropriate containment to avoid environmental contamination.</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)
Dodine	400 g/L	2439-10-3	219-459-5	Acute Tox 4 (H302) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)

4) FIRST AID MEASURES:

Inhalation:	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.
Skin contact:	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. If a large area is affected seek medical assistance.
Eye contact:	Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Seek medical assistance.
Ingestion:	Never give anything by mouth to an unconscious person. If swallowed do NOT induce vomiting. For advice, contact the National Poisons Centre. Seek medical assistance immediately.
Most important symptoms and effects, both acute and delayed:	To date no symptoms are known.
Indication of any immediate medical attention and special treatment needed:	No specific antidote known. Treat symptomatically and supportively.

5) FIRE-FIGHTING MEASURES:

Extinguishing Media:	Water fog, foam, carbon dioxide or dry chemical.
Unsuitable Extinguishing Media:	Waterjet
Specific Hazards arising from the substance/mixture:	Take extra care if mixed with chlorine releasing compounds - increased skin irritancy
Fire Fighting:	Remove spectators from surrounding area. Isolate the fire area and evacuate downwind. Use a recommended extinguishing agent for the type of surrounding fire.

Protective clothing:	<p>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. Dyke fire control water 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>Occupational spill:</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. Sweep up solids without generating dust. Contain and absorb liquid spills with inert material and place in waste containers. If spill does enter waterways contact the local authority. Collect in an appropriate sealable container for disposal in an approved landfill. Wash area with water and detergent and absorb with further inert material. Dispose of waste safely in an approved landfill.</p>
7) HANDLING & STORAGE:	
<p>Precautions for Safe Handling:</p> <p>Conditions for Safe Storage, including any incompatibilities:</p>	<p>Avoid skin and eye contact and inhalation of spray mist. 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.</p> <p>Store in original container tightly closed and in a locked, cool, dry area away from foodstuffs, fertilisers and seeds and uninformed persons.</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>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>No data available</p> <p>Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance.</p>

Gloves:	Employee must wear appropriate chemical-resistant gloves to prevent contact with this substance
Eye protection:	The use of safety goggles 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:	White liquid
Odour:	Characteristic
Solubility:	Suspends in water
pH:	Slightly acidic (6.4)
Odour Threshold:	Not available
Melting point / Freezing point:	Not available
Initial boiling point and boiling range:	Not available
Flash Point:	Not combustible
Evaporation rate:	Not available
Flammability (solid, gas):	Not available
Upper/ lower flammability or explosive limits:	Not available
Vapour pressure:	Not available
Vapour density:	Not available
Relative density:	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature:	Not available
Decomposition Temperature:	Not available
Viscosity:	Not available
10) STABILITY & REACTIVITY:	
Reactivity:	No hazardous reactions if stored and handled as indicated.
Chemical Stability:	When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture.
Possibility of hazardous reactions:	Not available
Conditions to avoid:	Not available
Incompatible materials:	Incompatible or can react with strong bases
Hazardous decomposition product(s):	Not available
11) TOXICOLOGICAL INFORMATION:	
Acute Toxicity:	
Oral:	LD50 > 1000 mg/kg (rat).
Dermal:	LD50 > 6000 mg/kg (rat).
Inhalation:	LD50 > 1.05 mg/l (rat, 4h)
Skin Corrosion/Irritation:	Moderate skin irritation, rabbit.
Serious Eye Damage/Irritation:	Irritating to eyes.
Respiratory or Skin Sensitization:	Animal test did not cause sensitization by skin contact., guinea pig
Germ Cell Mutagenicity:	No data available
Carcinogenicity:	No data available
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:	Oral LD ₅₀ Mallard ducks 1142 Mmg/kg, Japanese quail 788 mg/kg.
Fish:	LC ₅₀ Harlequin fish (48h) 0.53 mg/l; (96 h) 0.6 mg/l.
Daphnia:	EC ₅₀ (48h) 0.13 mg/l.
Algae:	EC ₅₀ <i>Selenastrum capricornutum</i> 5.1 µg/l.
Worms:	Not available

Bees:	Topical LD ₅₀ Honeybees >0.2 mg/bee.
Other:	Not available
Persistence and Degradability:	Aerobic soil metabolism DT ₅₀ 17.5–22.3d. Stable in anaerobic aquatic environments.
Bio accumulative Potential:	Unlikely to accumulate.
Mobility in Soil:	Based on soil partition coefficient, likely to be immobile in soils.
13) DISPOSAL CONSIDERATIONS:	
Waste Disposal:	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 NO 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. (Dodine). 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. (Dodine). Transport Hazard Class: 9 Miscellaneous Dangerous Goods Packaging group: III Labelling no: 9 Environmental Hazards: Toxic to aquatic life with long-lasting effects. Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.
Air Transport ICAO / IATA:	Not applicable
Transport in Bulk (according to Annex II of MARPOL 73/78 and the IBC Code):	Not applicable
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 Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS 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 MSDS 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 MSDS to their own MSDS.</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</p>	

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Abbreviations: None

Literature References:

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