

MODE OF ACTION

GERMOLL-S is a broad spectrum, multi-purpose disinfectant specially formulated with two active ingredients namely Didecylidimethylammonium chloride (DDAC) and Ethyl alcohol. DDAC has a strong bactericidal activity by disrupting the bacterial cell membrane. Ethanol is antimicrobial agent and works by denaturation of proteins in presence of water. This makes **Germoll-S** highly effective against a number of pathogenic organisms including bacteria, antibiotic resistant bacteria, viruses, moulds, fungi and mildew.

METHOD OF USE

Method	Dilution	Rate
Spray using a Sprayer	1% solution	Enough to wet all areas
Mist using a Mist blower	1% solution	At normal throttle to cover all areas
Wiping or mopping using Cloth/Mop	1% solution	Enough to cover all area
Foot and Tyre Bath	1-5% solution	As needed to wet all areas

DIRECTIONS FOR USE

SITUATION	DILUTION	CRITICAL COMMENTS
General Disinfection Hotel, Hospitals, Restaurant, Homes, Commercial buildings, Manufacturing, Factories, Warehouse, Aircrafts, Ships, shipping containers, garbage containers etc.	10ml/L of water (1% solution)	Use a spray or misting machine to cover all areas. Use foam, wipe or mop for surface cleaning where ever appropriate.
Utility Item Motor vehicles, Ambulance, Delivery trucks, Machinery, Equipment, Medical apparatus, home and farm apparatus of any kind.	10ml/L of water (1% solution)	Apply to appliances that are clean and free of detergent. Apply to all parts of the appliance and keep the surfaces wet for a minimum of 2 minutes. Remove visible soil and plant material from vehicles and tyres. Spray tyres with a 1% solution till run-off.
Animal Houses/Sheds/Farm/Slaughter houses/farm implements Poultry and animal farms, Cold rooms, Packing sheds, Tunnels, Seed trays & other hard surfaces. All type of farm implements such as cutting tools, trays etc.	10ml/L of water (1% solution)	First remove all organic matter from surfaces and keep wet with Germoll-S solution for a minimum of 5 minutes for best results.
Foot bath/ Farm biosecurity treatment Rubber boots, leather boots & shoes, Vehicle tyre wash etc. For the control of all type of germs - both soil and surface borne	10 – 50ml/L of water (1-5% solution)	Use the higher rate where heavy traffic and organic matter are present. Germoll-S is a contact biocide. Keep wet for at least 2 minutes for best results. Clean all debris from footwear, then leave to soak. "No biocide can be effective if the person simply walks or drives straight through the footbath." Replace solution daily as organic matter will degrade biocide activity.
Wood Preservative	10ml/L of water (1% solution)	Not recommended for finished or polished wooden surface.
Bird, bat and animal faecal droppings	10ml/L of water (1% solution)	Pressure wash using a compressed air sprayer.

KEEP OUT OF REACH OF CHILDREN**MAGFECTANT****Germoll-S-DDAC****Powerful Bactericide & Fungicide for Agricultural Use, Animal Husbandry & General Sanitation****Active ingredient**

Didecylidimethylammonium chloride.....120 g/l (DDAC)
Ethanol.....100 g/l
Excipients780 g/l

NET VOLUME

1 Litre

BATCH NUMBER**DATE OF MANUFACTURE****MANUFACTURED BY:**

Nova Agro (HK) Ltd
6th Floor, Wyndham Place, 44 Wyndham Street, Central Hong Kong

Supplied by Maguires-

A member of
CropLife
ZIMBABWE

Registration Holder:

Magchem
2274 Tilbury Road, Willowvale, Harare

Exclusive Distributor in Zimbabwe:

Maguires
196 Harare Drive, Borrowdale, Harare

SAFETY DIRECTIONS

- Harmful if swallowed.
- Will irritate the skin.
- Will damage the eyes.
- Avoid contact with eyes and skin. DO NOT inhale spray mist.
- When opening the container, mixing and loading, preparing and using the product, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), a washable hat, chemical resistant gloves and goggles or safety glasses.
- If product on skin, immediately wash area with soap and water.
- If product in eyes, wash it out immediately with water.
- Wash hands and exposed skin thoroughly after handling.
- After each day's use wash gloves, goggles and contaminated clothing.
- Do not eat, drink or smoke when using this product.
- Wear face protection.

FIRST AID

- If poisoning occurs, contact a Doctor or Poisons Information Centre.
- If swallowed, do NOT induce vomiting. Give a glass of water. If skin contact occurs, remove contaminated clothing and wash skin thoroughly.
- If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- If in eyes, hold eyes open, flood with water for 15 minutes and see a doctor.

STORAGE & DISPOSAL

- Store in the closed original container in a cool dry place out of the reach of children.
- Do not store in direct sunlight. Triple rinse or preferably pressure rinse containers before disposal.
- Add rinsings to spray tank. Do not dispose of undiluted chemicals on-site.
- If recycling, replace cap 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 the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.



1. Triple rinse clean container after use.
2. Puncture holes in bottom.
3. Return to Maguires recycling facility/or- Return to your nearest recycling facility.

Batch/Lot No.: 20200201**Date of Manufacture:** FEB. 2020**Date of Expiry:** FEB. 2022

1. IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY

Product name GERMOLL-S Disinfectant
Common name Didecyldimethylammonium Chloride 120g/L
Chemical names 1-Decanaminium, N-decyl-N,N-dimethyl-, chloride
Supplier NOVA AGRO (HK) LIMITED
(Reg. No. 1023146)
6th Floor Wyndham Place
44 Wyndham Street
CENTRAL HONG KONG.

Emergency Tel/Fax +27(0) 83 676 1998

2. HAZARDS IDENTIFICATION**GHS Classification**

Serious eye damage-Category 1

Skin corrosion-Category 1

Hazard pictograms

Signal word Danger

Hazard statements

H226 Flammable liquid and vapour
H302 Harmful if swallowed
H314 Causes severe skin burns and eye damage
H336 May cause drowsiness or dizziness
H410 Very toxic to aquatic life with long lasting effects

Precautions statements

P210 Keep away from heat
P273 Avoid release to the environment
P280 Wear protective gloves/protective clothing/eye protection/face protection

Response

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Remove immediately contaminated clothing. Rinse skin with water.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTRE or doctor.
P363 Wash contaminated clothing before reuse.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	Content (g/L)
Active ingredient (Didecyldimethylammonium Chloride)	120 g/L
Ethanol	100 g/L
Water	780 g/L

4. FIRST AID MEASURES

General advice: If poisoning occurs, contact a doctor or Poisons Information Centre.

Inhalation: Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.

Skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

Eye contact: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Ingestion: DO NOT induce vomiting. Immediately rinse mouth with water (only if patient is conscious) and consult a physician or call the Poisons Information Centre. DO NOT induce vomiting due to risk of further damage. Give water or milk to drink if patient is conscious.

Medical advice: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media: Use foam, dry powder or carbon dioxide.

Special hazards arising from the substance or mixture

May evolve toxic gases (carbon/nitrogen oxides, ammonia, chlorides, hydrocarbons) when heated to decomposition.

Advice for fire-fighters

Wear full protective clothing and self-contained breathing apparatus. Do not allow run-off from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact.

Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.

Environmental precautions

Do not let product enter drains. Risk of explosion.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material. Dispose of properly. Clean up affected area.

Reference to other sections

Refer to disposal considerations listed in section 13.

7. HANDLING AND STORAGE**Precautions for safe handling**

No special protective measures against fire required. Avoid contact with skin and eyes. When using does not eat, drink or smoke. For personal protection see section 8.

Conditions for safe storage, including any incompatibilities

Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs.

Specific end use(s)

For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures: Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

Protective measures: The use of technical measures should always have priority over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice. Personal protective equipment should be certified to appropriate standards.

Respiratory protection: A combination gas, vapour and particulate respirator may be necessary until effective technical measures are installed. Protection provided by air-purifying respirators is limited. Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

Hand protection: Chemical resistant gloves should be used. Gloves should be certified to an appropriate standard. Gloves should have a minimum breakthrough time that is appropriate to the duration of exposure. The breakthrough time of gloves varies according to the thickness, material and manufacturer. Gloves should be changed when breakthrough is suspected. Suitable material: nitrile rubber.

Eye protection: If eye contact is possible, use tight-fitting chemical safety goggles and a faceshield.

Skin and body protection: Assess the exposure and select chemical resistant clothing based on the

potential for contact and the permeation / penetration characteristics of the clothing material. Wash with soap and water after removing protective clothing. Decontaminate clothing before re-use, or use disposable equipment (suits, aprons, sleeves, boots, etc.). Wear as appropriate: impervious protective suit.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form: Liquid

Color: Colourless

Odor: Slight

pH: 5.0~8.0

Specific Gravity: 0.99

Solubility in water: Fully miscible

Flash point: No information available

Oxidizing properties: not oxidizing

Explosive properties: not explosive.

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions of use.

Conditions to avoid: Avoid extreme heat, flames and ignition sources. Hazardous polymerization will not occur.

Incompatible materials: No information available

10.6 Hazardous decomposition products: May evolve toxic gases (carbon/nitrogen oxides, ammonia, chlorides, hydrocarbons) when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

Acute oral LD₅₀: > 2000 mg/kg for rat

Acute dermal LD₅₀: > 2000 mg/kg for rat

Skin irritation: Cause burns

Eye irritation: Cause burns

Inhalation and skin sensitization: Vapours or mist may cause irritation.

Germ cell mutagenicity: No information available

Carcinogenicity: No information available

Reproductive toxicity: No information available

STOT – single exposure: No information available

STOT – repeated exposure: No information available

12. ECOLOGICAL INFORMATION**Acute Toxicity**

Toxicity to fish: LC₅₀ *Oncorhynchus mykiss* (rainbow trout), 0.58 mg/l, 96 h

Toxicity to aquatic invertebrates: EC₅₀ *Daphnia magna* (water flea), 0.087 mg/l, 48 h

Toxicity to aquatic plants: E_rC₅₀ *Pseudokirchneriella subcapitata* (green algae), 0.16 mg/l, 72h

Persistence and degradability

Didecyl dimethyl ammonium chloride is readily biodegradable

Bioaccumulative potential

Bioconcentration factor (BCF): 81

Mobility in soil

Chlorothalonil has low to slight mobility in soil.

13. DISPOSAL CONSIDERATIONS

Product: Where possible, product should be used for its intended purpose including the rinsings of the container (add rinsings to the spray tank). Dispose of in accordance with all local state and national regulations. Do not discard into drains or waterways.

Contaminated packaging: Triple rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on-site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, State or Territory government regulations. Do not burn empty container or product.

14. TRANSPORTATION INFORMATION**DOT, IMDG, IATA**

UN Number: 2920

UN proper shipping name: Corrosive Liquids. Flammable. N.O.S. (Didecyl dimethyl ammonium chloride).

Transport hazard class (es): 8 (3)

Packing group: II

15. REGULATORY INFORMATION

Refer to local regulations.



MATERIAL SAFETY DATA SHEET

PRODUCT : GERMOLL-S Disinfectant

EFFECTIVE DATE : April 2020

REVISION No. : 0

PAGES : 6

16. OTHER INFORMATION

Note: The information herein is to the best of our knowledge, correct and complete. It describes the safety requirements for this product and should not be construed as guaranteeing specific properties. Since methods and conditions are beyond our control we do not accept liability for any damages resulting from the use of, or reliance on, this information in inappropriate contexts.

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