



MATERIAL SAFETY DATA SHEET (MSDS)

Quat Plus Liquid Disinfectant Germicides

Effective against influenza A (H1N1)



SECTION I ▶ PRODUCT IDENTIFICATION					
Product Name Quat Plus		Product Type Liquid Disinfectant		WHMIS Classification Exempt	
SECTION II ▶ HAZARDOUS INGREDIENTS					
Chemical Name N,N-DIALKYL-N,N-dimethyl ammonium chloride		Cas Registry No. 68424-95-3	% 1-5	Toxicity LD ₅₀ ORAL (RAT) 455 mg/kg	
SECTION III ▶ PHYSICAL DATA					
Appearance Clear colourless liquid	Odour Unscented	pH 10.5	Boiling Point 100 °C	Specific Gravity 1.0	Solubility in Water 100 %
SECTION IV ▶ FIRE AND EXPLOSION HAZARD DATA					
Flash Point (°C): None			Extinguishing media: Not Applicable		
Special fire fighting procedures: None					
Unusual fire and explosion hazards: None					
SECTION V ▶ TOXICOLOGICAL PROPERTIES					
HAZARD RATING: Health = 1 Flammability = 0 Reactivity = 0					Rating System 0 = Insignificant 1 = Slight 2 = Moderate 3 = High 4 = Extreme
Swallowing: Slightly Toxic					
Inhalation: Not Applicable					
Skin Absorption: Unknown					
Skin Contact: May cause irritation					
Eye Contact: Irritant					
Special Warning: None					
SECTION VI ▶ FIRST AID MEASURES					
Ingestion: Promptly drink large quantities of milk, egg whites, gelatin or water. Avoid alcohol. Call a physician immediately.					
Inhalation: Not Applicable					
Skin: Flush thoroughly with water for at least 15 minutes. Remove and wash contaminated clothing.					
Eyes: Flush thoroughly with water for at least 15 minutes. Call a physician.					
SECTION VII ▶ REACTIVITY DATA					
Stable: Yes					
Conditions to avoid: None					
Incompatibility with other materials: None					
Hazardous decomposition products: None					
Hazardous polymerization: Will not occur.					
SECTION VIII ▶ PREVENTIVE MEASURES					
Hand protection: Gloves made of neoprene, rubber, polyvinyl chloride, Viton or nitrile.					
Eye protection: Safety glasses with side shields.					
Ventilation: General					
Respiratory protection: None					
Other protective equipment: In case of spills, wear chemical resistant apron and boots.					
Steps to be taken in case material is released or spilled: Mop up spillage. Rinse spill area with water and allow to dry.					
Waste disposal method: Flush with water into waste systems in accordance with municipal, provincial and federal regulations.					
Precautions to be taken in handling and storage: Normal handling processes. Inside storage at 4-40 °C recommended.					
Other precautions: Follow label use instructions.					
UN: Not Applicable		TDG Class: None		Packing Group: Not Applicable	
TDG Emergency Telephone Number: 613-996-6666 (COLLECT)					
SECTION IX ▶ PREPERATION DATA					
Prepared by: D.R. Dunlop			Last updated: August 1, 2012		
Location: Dustbane Products Limited, 25 Pickering Place, Ottawa, Ontario, K1G 5P4 – 613-745-6861					

Quat Plus

Liquid Disinfectant

"QUAT PLUS offers a fast and effective solution to disinfect hard surfaces. This quat-based disinfectant cleaner kills a broad spectrum of bacteria, virus and fungi without the harsh smell of chemicals. An Ecologo Certified Product."

FEATURES AND BENEFITS

Environmentally Friendly: Approved - CCD-166 "Disinfectants and Disinfectant Cleaners"
Multiple Claims: effectively destroys a broad range of bacteria, fungi and viruses including: Pseudomonas aeruginosa, Salmonella choleraesuis, Staphylococcus aureus, HIV-1 and Trichophyton mentagrophytes.
Dual Purpose: General Purpose Hard Surface Cleaners.

WHERE TO USE

QUAT PLUS was formulated for use in health care and food processing facilities. It may be used to disinfect all hard, non-porous surfaces including walls, floors, tubs, sinks, countertops, garbage pails, furniture etc.

HOW TO USE

Recommended Dillution Rates:

Heavy Cleaning	1:40
All Purpose	1:120
Regular Cleaning	1:256
Automatic Scrubber	1:256
Disinfection	1:80 (CCD-166) Effective against influenza A (H1N1)

Note: Adjust dilution rates to suit your cleaning needs.

Apply with a mop, sponge or cloth.

MOLD AND MILDEW: When mixed at a rate of 1:80, QUAT PLUS effectively inhibits the growth of odour-causing mold and mildew. Apply the solution and allow it to dry on the treated surface. Repeat treatment when mold or mildew returns.

DISINFECTING: Allow a minimum contact time of 10 minutes in a single application. Surfaces subject to direct food contact should be adequately rinsed with potable water. Heavily soiled surfaces must be precleaned.

HIV-1: When mixed at a rate of 1:80, QUAT PLUS may be used to disinfect and decontaminate hard surfaces exposed to blood or other body fluids that contain the HIV-1 virus. Thoroughly clean all hard surfaces removing blood and body fluids prior to disinfection. Allow surfaces to remain wet for a minimum of 4 minutes. Wear protective clothing including latex gloves, gown, mask and eye goggles. Blood, body fluids, cleaning materials and clothing should be autoclaved and disposed of according to local regulations. [Note: efficacy testing was done in the presence of hard water (400 ppm as CaCO₃) and a soil load (5% blood serum)].

SPECIFICATIONS

N,N-DIALKYL-N,N-dimethyl ammonium chloride: 4.8%
Inert Ingredients: 95.2%
pH, concentrate @ 25°C: 10.5
pH, at 1:80 @ 25°C: 9.0-9.5
Colour: Colourless
Odour: Unscented
DIN#: 02298694
CFIA Approval: Yes

Quat Plus is an effective bactericide, fungicide and virucide as demonstrated by the following support data:

- a) CLAIM - DISINFECTANT - AOAC USE - DILUTION TEST AT 600 ppm (dilution ratio of 1:80 in 250 ppm hard water).

Pseudomonas aeruginosa	ATTC# 15542	10	0/10
Staphylococcus aureus	ATTC# 6538	10	0/10
- b) CLAIM - DISINFECTANT - AOAC USE - DILUTION TEST AT 600 ppm (dilution ratio of 1:80 in 250 ppm hard water and 5% organic soil).

Salmonella enterica	ATTC# 10708	10	0/10
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- c) CLAIM - FUNGICIDE - AOAC FUNGICIDAL USE - DILUTION TEST AT 600 ppm (dilution ratio of 1:80 in 250 ppm hard water and 5% organic soil).

Trichophyton mentagrophytes	ATTC# 9533	10	0/10
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- d) CLAIM - VIRUCIDE - EPA VIRUCIDAL EFFICACY OF A DISINFECTANT FOR USE ON INANIMATE ENVIRONMENTAL SURFACES AT 600 ppm (dilution ratio of 1:80 in 250 ppm hard water and 5% organic soil).

HIV type 1	Strain HTLV III	Titer reduction	≥ 3.5 log ₁₀
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- e) CLAIM - INFLUENZA A H1N1 - EPA VIRUCIDAL EFFICACY OF A DISINFECTANT FOR USE ON INANIMATE ENVIRONMENTAL SURFACES AT 600 ppm (dilution ratio of 1:80 in 250 ppm hard water and 5% organic soil).