



MATERIAL SAFETY DATA SHEET (MSDS)

Quat Plus M5

Liquid Disinfectant

Effective against influenza A (H1N1)

Germicides



SECTION I ▶ PRODUCT IDENTIFICATION					
Product Name Quat Plus M5		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	% 5-10	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 = 2 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: Irritant					
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: M. Mikoluk			Last updated: June 1, 2015		
Location: Dustbane Products Limited, 25 Pickering Place, Ottawa, Ontario, K1G 5P4 – 613-745-6861					

Quat Plus M5

Liquid Disinfectant

“This quat-based disinfectant cleaner kills a broad spectrum of bacteria, virus and fungi without the harsh smell of chemicals.”

FEATURES AND BENEFITS

Reduced environmental impact: ECOLOGO Certified UL 2794 - 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: Cleans and disinfects.

Spill-Resistant Protection: Prevents leaks, prevents accidental spillage, ensures employee safety, prevents chemical waste, enhances use of dispensing system.

WHERE TO USE

Quat Plus M5 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

Preclean heavily soiled surfaces before using Quat Plus. Dilute with unheated tap water according to the dilution rates listed below. Apply the solution with a sponge, mop or cloth. Allow 10 minutes contact time for complete disinfection.

Recommended Dilution Rates:

Heavy Cleaning	1:40
All Purpose	1:120
Regular Cleaning	1:256
Automatic Scrubber	1:256
Disinfection	1:128

Note: Adjust dilution rates to suit your cleaning needs.

MOLD AND MILDEW: When mixed at a rate of 1:128, QUAT PLUS M5 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 1:128, QUAT PLUS M5 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: 7.7%

pH, concentrate @ 25°C: 10.5

pH, at 1:128 @ 25°C: 9.0-9.5

Colour: Colourless

Odour: Unscented

DIN#: 02298694

CFIA Approval: Yes

Quat Plus M5 is an effective bactericide, fungicide and virucide as demonstrated by the following support data:

- 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
- 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
---------------------	-------------	----	------
- 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
-----------------------------	------------	----	------
- 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 $\geq 3.5 \log_{10}$	
------------	-----------------	--------------------------------------	--