



# MATERIAL SAFETY DATA SHEET (MSDS)

## Quat Plus Liquid Disinfectant Germicides

Effective against influenza A (H1N1)



SECTION I ▶ PRODUCT IDENTIFICATION					
<b>Product Name</b>		<b>Product Type</b>		<b>WHMIS Classification</b>	
Quat Plus		Liquid Disinfectant		Exempt	
SECTION II ▶ HAZARDOUS INGREDIENTS					
<b>Chemical Name</b>		<b>Cas Registry No.</b>	<b>%</b>	<b>Toxicity</b>	
N,N-DIALKYL-N,N-dimethyl ammonium chloride		68424-95-3	1-5	LD <sub>50</sub> ORAL (RAT) 455 mg/kg	
SECTION III ▶ PHYSICAL DATA					
<b>Appearance</b>	<b>Odour</b>	<b>pH</b>	<b>Boiling Point</b>	<b>Specific Gravity</b>	<b>Solubility in Water</b>
Clear colourless liquid	Unscented	10.5	100 °C	1.0	100 %
SECTION IV ▶ FIRE AND EXPLOSION HAZARD DATA					
<b>Flash Point (°C):</b> None			<b>Extinguishing media:</b> Not Applicable		
<b>Special fire fighting procedures:</b> None					
<b>Unusual fire and explosion hazards:</b> None					
SECTION V ▶ TOXICOLOGICAL PROPERTIES					
<b>HAZARD RATING:</b> Health = 1 Flammability = 0 Reactivity = 0					<b>Rating System</b> 0 = Insignificant 1 = Slight 2 = Moderate 3 = High 4 = Extreme
<b>Swallowing:</b> Slightly Toxic					
<b>Inhalation:</b> Not Applicable					
<b>Skin Absorption:</b> Unknown					
<b>Skin Contact:</b> May cause irritation					
<b>Eye Contact:</b> Irritant					
<b>Special Warning:</b> None					
SECTION VI ▶ FIRST AID MEASURES					
<b>Ingestion:</b> Promptly drink large quantities of milk, egg whites, gelatin or water. Avoid alcohol. Call a physician immediately.					
<b>Inhalation:</b> Not Applicable					
<b>Skin:</b> Flush thoroughly with water for at least 15 minutes. Remove and wash contaminated clothing.					
<b>Eyes:</b> Flush thoroughly with water for at least 15 minutes. Call a physician.					
SECTION VII ▶ REACTIVITY DATA					
<b>Stable:</b> Yes					
<b>Conditions to avoid:</b> None					
<b>Incompatibility with other materials:</b> None					
<b>Hazardous decomposition products:</b> None					
<b>Hazardous polymerization:</b> Will not occur.					
SECTION VIII ▶ PREVENTIVE MEASURES					
<b>Hand protection:</b> Gloves made of neoprene, rubber, polyvinyl chloride, Viton or nitrile.					
<b>Eye protection:</b> Safety glasses with side shields.					
<b>Ventilation:</b> General					
<b>Respiratory protection:</b> None					
<b>Other protective equipment:</b> In case of spills, wear chemical resistant apron and boots.					
<b>Steps to be taken in case material is released or spilled:</b> Mop up spillage. Rinse spill area with water and allow to dry.					
<b>Waste disposal method:</b> Flush with water into waste systems in accordance with municipal, provincial and federal regulations.					
<b>Precautions to be taken in handling and storage:</b> Normal handling processes. Inside storage at 4-40 °C recommended.					
<b>Other precautions:</b> Follow label use instructions.					
<b>UN:</b> Not Applicable		<b>TDG Class:</b> None		<b>Packing Group:</b> Not Applicable	
<b>TDG Emergency Telephone Number:</b> 613-996-6666 (COLLECT)					
SECTION IX ▶ PREPARATION DATA					
<b>Prepared by:</b> M. Mikoluk			<b>Last updated:</b> June 1, 2015		
<b>Location:</b> Dustbane Products Limited, 25 Pickering Place, Ottawa, Ontario, K1G 5P4 – 613-745-6861					

# Quat Plus

## 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.

### WHERE TO USE

Formulated for use in health care, food processing facilities, schools, offices and public areas. It may be used to disinfect all hard, non-porous surfaces including walls, floors, tubs, sinks, counter tops, 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.

#### Dilution Rates:

Disinfection/ECOLOGO (Certified UL 2794)	1:80
All purpose	1:120
Regular cleaning	1:256
Heavy cleaning	1:40
Auto-scrubber	1:256

*Note: Adjust dilution rates to suit your cleaning needs.*

**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 CaCO<sub>3</sub>) 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:** Yes

Quat Plus 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
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- 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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- 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 $\geq 3.5 \log_{10}$	
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- 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).
 

HIV type 1	Strain HTLV III	Titer reduction $\geq 3.5 \log_{10}$	
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