Micro-Kill+®

Disinfecting, Deodorizing Cleaning Wipes with Alcohol technical data bulletin

EPA Reg. No. 59894-10-37549

Product Description

Micro-Kill + Disinfecting, Deodorizing Cleaning Wipes with Alcohol are a nonwoven disposable cloth containing a stable, low pH formulated disinfectant and deodorant for use on hard, non-porous surfaces, in hospitals, intensive care units, surgery, recovery, anesthesia, X-ray, Cat. Lab, orthopedics, newborn nursery, respiratory therapy, emergency medical settings, laboratories, clinics, nursing facilities, medical offices, dental offices, veterinary facilities, janitorial, commercial, and where control of cross-contamination is required. For use on hard non-porous surfaces only; such as stainless steel, Formica, glass tables, carts, baskets, counters, cabinets, telephones.

Chemical composition

Active ingredients	Percentage
N-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride	0.12%
N-Alkyl (68% C12, 32% C14) dimethyl ethyl benzyl ammonium chloride	0.12%
Isopropyl Alcohol	41.58%
Other ingredients	58.18%
Total	**100.00%**

MSC351200 MSC351210

Efficacy

Bacterial organism efficacy

Acid-fast bacteria/Mycobacteria

Organism	*Mycobacterium tuberculosis* (*Mycobacterium bovis* BCG)
Test method used	EPA Disinfectant Towelette Test
Organic soil load	5% Heat-inactive horse serum
Exposure time	2 minutes at 22°C (room temperature)
Incubation	90 days at 37 ± 2°C
Results	Passed

Drug resistant bacteria

Organism	Methicillin Resistant *Staphylococcus aureus* (MRSA) (ATCC 33591) Vancomycin Resistant *Enterococcus faecalis* (VRE) (ATCC 51299)
Test method used	EPA Disinfectant Towelette Test
Organic soil load	5% Heat-inactivated horse serum
Exposure time	2 minutes at 20-22°C (room temperature)
Incubation	48 ± 2 hours at 37 ± 2°C
Results	Passed

Gram-negative bacteria

Organism	*Escherichia coli* 0157:H7 (ATCC 35150) *Salmonella enterica* (ATTCC 10708) *Pseudomonas aeruginosa* (ATCC 15442)
Test method used	EPA Disinfectant Towelette Test
Organic soil load	5% Heat-inactivated horse serum
Exposure time	2 minutes at 20-22°C (room temperature)
Incubation	48 ± 2 hours at 37 ± 2°C
Results	Passed

Gram-positive bacteria

Organism	*Staphylococcus aureus* (ATCC 6538)
Test method used	EPA Disinfectant Towelette Test
Organic soil load	5% Heat-inactive horse serum
Exposure time	2 minutes at 20-22°C (room temperature)
Incubation	48 ± 2 hours at 37 ± 2°C
Results	Passed

Viral organism efficacy

Enveloped viruses

Organism	Herpes Simplex virus 2 (genital herpes virus) (ATCC VR-734) Influenza A (A2 Japan)
Test method used	EPA Disinfectant Towelette Test
Organic soil load	5% serum
Exposure time	2 minutes at 20°C (room temperature)
Incubation	HSV-2 6-8 days at 36 ± 2°C with 5 ± 1% CO_2 Influenza A 4-6 days at 36 ± 2°C with 5 ± 1% CO_2
Results	Passed

Bloodborne pathogens

Organism	Human Hepatitis B virus (Duck Hepatitis B virus) Human Hepatitis C virus (Bovine Viral Diarrhea virus)
Test method used	EPA Disinfectant Towelette Test
Organic soil load	5% serum
Exposure time	2 minutes at 19°C (room temperature)
Incubation	HBV 9-13 days at 36 ± 2°C with 5 ± 1% CO_2 HCV 7-9 days at 36 ± 2°C with 5 ± 1% CO_2
Results	Passed
Organism	HIV-1 (AIDS virus)
Test method used	ASTM E 1053-97
Organic soil load	5% serum
Exposure time	1 minute
Incubation	3-4 weeks at 37 ± 2°C at 5 ± 1% CO_2
Results	Passed

Fungal organism efficacy

Organism	*Trichophyton mentagrophytes* (ATCC 9533)
Test method used	AOAC Fungicidal Efficacy Test
Organic soil load	5% Heat-inactivated horse serum
Exposure time	5 minutes at 20 ± 2°C incubation test
Incubation	10 days at 25-30°C
Results	Passed

Toxicity[1]

Acute oral toxicity study (U.S. EPA Health Effects Guidelines, OPPTS 870.1100 (2002))

Acute oral toxicity up and down procedure in rats: All animals survived exposure to the test substance and gained body weight during the study. The animals recovered by Day 5 and appeared active and healthy for the remainder of the 14-day observation period.

Conclusion: A single-dose of the product solution was administered and observed for 14 days. Based on the results of this study has an acute oral toxicity LD50 greater than 5,000mg/kg of body weight.

Primary eye irritation (U.S. EPA Health Effects Guidelines, OPPTS 870.2400 (1998))

Primary eye irritation study in rabbits: One hour after the test substance instillation, all treated eyes exhibited corneal opacity, iritis, and conjunctivitis. The overall incidence and severity of irritation decreased gradually with time. All animals were free of ocular irritation by Day 10 (study termination).

Conclusion: One eye of each rabbit was instilled with the solution, while the contralateral eye remained untreated and served as a control. Ocular lesions were evaluated by method of Draize at 1, 24, 42, and 72 hours; and days 4, 7, and 10 after instillation. The product solution produced eye irritation clearing in 10 days or less. Under the conditions of this study, the product solution is classified as moderately irritating to the eye.

Acute dermal toxicity study (U.S. EPA Health Effects Guidelines, OPPTS 870.1200 (1998))

Acute dermal toxicity in rats-limit test: All animals survived, gained body weight, and appeared active and healthy. There were no signs of gross toxicity, adverse pharmacologic effects or abnormal behavior.

Conclusion: Following the single dermal administration, the animals were observed for 14 days. Under the conditions of this test, the acute dermal LD50 was found to be greater than 5,000mg/kg of body weight.

Primary dermal irritation (U.S. EPA Health Effects Guidelines, OPPTS 870.2500 (1998))

Dermal irritation study in rabbits: One hour after patch removal, all treated sites exhibited very slight erythema. All animals were free of dermal irritation by 24 hours.

Conclusion: Under the conditions of this study, the product solution is classified as moderately irritating to the skin.

Dermal sensitization study in guinea pigs (U.S. EPA Health Effects Guidelines, OPPTS 870.2600 (1998)):

Conclusion: Based on these findings and on the evaluation system used, the product solution is not considered to be a contact sensitizer.

1. All testing done by Performing Laboratory on January 14, 2005.