



# Micro-Kill D1™ Plus Germicidal Wipes

## Material compatibility test and results

### Overview

An ideal disinfectant provides rapid broad-spectrum kill of common microorganisms without damaging surfaces. Yet no disinfectant is compatible with every surface material it may encounter during use. For this reason, understanding material compatibility is critical. Micro-Kill D1 Plus Germicidal Wipes have been tested on numerous substrates to assess compatibility of common base materials. The material compatibility profile of Micro-Kill D1 Plus Germicidal Wipes is favorable for use on most surfaces found in a hospital environment.

### Testing Method

Micro-Kill D1 Plus Germicidal Wipes were tested on the following base materials for a test duration simulating 3000 applications at ambient room temperature. After completion of the exposure time, samples were rinsed with tap water and allowed to dry at room temperature, then weighed, examined microscopically, and assigned a rating based on any changes observed.

### Plastics

- Acrylonitrile Butadiene Styrene (ABS)
- Polysulfone (PSU)
- Polycarbonate (PC)
- Polytetrafluoroethylene (PTFE)
- Polyphenylsulfone (PPSU)
- Polypropylene (PP)
- Polyethylene (PE)
- Polyetheretherketone (PEEK)
- Acetal Copolymer (POM-C)
- High Density Polyethylene (HDPE)
- Polystyrene (PS)
- Acetal Homopolymer (POM-H)
- Polyvinyl Chloride (PVC)
- Polyamide (PA)
- Polyurethane (PU)
- Polyethylene Terephthalate (PET)
- Poly Methyl Methacrylate (PMMA) (Acrylic)
- Polyvinylidene Fluoride (PVDF)

### Engineered Hard Surfaces

- Corian
- Krion
- High Pressure Laminate (HPL)
- Glass

### Fabric/Upholstery

- Nylon
- PVC Coated Cotton
- Vinyl/PU Coated Fabric
- PVC Coated Polyester
- Polyurethane Coated Fabric
- PU/Polyester Bi-Elastic
- Velour Polyester
- Skai Coated Fabric

### Metals

- Brushed Stainless Steel
- Bright Stainless Steel
- Titanium
- Lacquered Aluminum
- Anodized Aluminum
- Chrome-plated Brass
- Nickel

### Elastomers

- Nitrile
- Silicone
- Ethylene Propylene Diene Monomer (EPDM)
- Neoprene
- Viton®
- Rubber

MSC351700

MSC351710



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## Test Results

### The following materials tested were determined to be compatible with Micro-Kill D1 Plus Germicidal Wipes:

#### Plastics

- Acrylonitrile Butadiene Styrene (ABS)
- Polytetrafluoroethylene (PTFE)
- High Density Polyethylene (HDPE)
- Polyvinyl Chloride (PVC)
- Polyethylene Terephthalate (PET)
- Polysulfone (PSU)
- Polyphenylsulfone (PPSU)
- Polyetheretherketone (PEEK)
- Polystyrene (PS)
- Polyamide (PA)
- Polyurethane (PU)
- Polycarbonate (PC)
- Polypropylene (PP)
- Acetal Copolymer (POM-C)
- Acetal Homopolymer (POM-H)
- Polyvinylidene Fluoride (PVDF)

#### Engineered Hard Surfaces

- Corian
- Krion
- High Pressure Laminate (HPL)
- Glass

#### Metals

- Brushed Stainless Steel
- Bright Stainless Steel
- Titanium\*
- Lacquered Aluminum\*
- Anodized Aluminum
- Chrome-Plated Brass
- Nickel

#### Elastomers

- Nitrile\*
- Silicone
- Ethylene Propylene Diene Monomer (EPDM)
- Neoprene
- Viton®
- Rubber

#### Fabric/Upholstery

- Vinyl/PU Coated Fabric
- PVC Coated Polyester
- PVC Coated Cotton
- PU/Polyester Bi-Elastic
- Nylon Fabric\*
- Skai Coated Fabric

### The following materials tested were determined to be incompatible with Micro-Kill D1 Plus Germicidal Wipes:

#### Plastics

- Poly Methyl Methacrylate (PMMA) (Acrylic)

#### Fabric/Upholstery

- Polyurethane Coated Polyester
- Velvet Polyester

## Conclusion

Chemical material compatibility performed on base substrates provides a sense of the general material compatibility profile of Micro-Kill D1 Plus Germicidal Wipes. Due to the various blends and grades of materials available in the marketplace, some of which are proprietary, if the materials of construction of the equipment or surface are unknown, the manufacturer should be consulted.

The test results outlined in this paper are intended to inform end users of potential surface compatibilities and incompatibilities so risk analyses and conversations with Medline can guide infection control policies and procedures.

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\*Cosmetic changes, stickiness or a change in surface roughness may be considered unfavorable from an anesthetic or use standpoint and should be taken into consideration when determining whether to adopt use on a potentially sensitive surface.