MEGANITE®

TECHNICAL BULLETINS

CHEMICAL RESISTANCE OF MEGANITE®

DOCUMENT PURPOSE

This document provides information on the chemical resistance properties of Meganite® Acrylic Solid Surface. Since surface damage can vary depending on the chemical reagent, exposure time, and maintenance procedures, it is recommended to test a sample of the material to confirm Meganite's suitability for the specific application.

CHEMICAL RESISTANCE OF MEGANITE®

Meganite® Acrylic Solid Surface complies with the standards outlined in ISO 19712-2:2007 and ANSI/ICPA SS-1-2001. To evaluate its resistance to various reagents, a similar procedure was followed, in which reagents were applied to the surface, covered for 16 hours, and then removed using soap and water or as otherwise indicated.

When testing, the concentration of chemicals is specified where applicable; otherwise, it refers to a solution in water. Caution is advised when using higher concentrations, as they may increase the risk of damage.

Exposure time is a crucial factor; prolonged exposure increases the risk of damage.

CLASS I REAGENTS

The following reagents generally show no permanent effect on Meganite® Acrylic Solid Surface sheet when left in contact for periods of 16 hours. Any chemical residues may be removed with a wet Scotch-Brite™ pad and bleaching cleanser.

acetic acid (10%)	ethyl ether*	methyl red (1%)	soy sauce
acetone	eucalyptol	mineral oil	sugar (sucrose)
ammonium hydroxide (<28%)(ammonia in water)	ferric chloride	mustard	sulfuric acid (<60%)
amyl acetate	food coloring	nail polish	tannic acid
amyl alcohol	formalin (10% neutral buffered formaldehyde)	nail polish remover (acetone)	tea
aromatic ammonia (smelling salts)	gasoline	naphthalene (naphtha)	tetrahydrofuran (THF)
ball point pen ink	gentian violet (crystal violet)	n-Hexane	tetramethylrhodamine
Benzene*	hair dyes	nitric acid (<6%)	thymol (alcohol solution)
bleach (household type)	hematoxylin stain	olive oil	toluene
Blood	household soaps	pencil lead	tomato sauce
butanol (butyl alcohol)	hydrochloric acid (20%, 30%, 37%)	perchloric acid	trisodium phosphate (30%)

B-4 body conditioner	hydrogen peroxide	permanent marker ink	trypan blue
calcium thiocyanate (78%)	iodine (1% in alcohol)**	phenolphthalein (1%)	urea (6%)
carbon disulfide	iodine, tincture of	phosphorus pentoxide	uric acid
carbon tetrachloride	isopropanol (isopropyl alcohol)*	potassium permanganate (2%)	urine
cigarette (nicotine)	Kerosene	povidone-iodine (PVP-I), “Betadine” Solution	vinegar
citric acid (10%)	ketchup	Saffron	washable inks
coffee	lemon juice	salt (sodium chloride)	wine (all varieties)
cooking oils	lipstick	shoe polish	Wright’s stain
cotton seed oil	liquid shoe polish	Silica dental cement (liquid)	xylenes
Cupra ammonia	lye (1%)	silver nitrate (10%)	zinc chloride
dimethyl formamide	Mercurochrome	sodium bisulfate	zinc oxide (paste, ointment)
dishwashing liquids/powders	Methanol*	sodium hydroxide flake† (Meganite no)	
ethyl acetate (in acetone-free nail polish remover)	methyl ethyl ketone (MEK)	sodium hydroxide solution (5%, 10%, 25%, 40%*)	
ethanol (ethyl alcohol)*	methyl orange (1%)	sodium sulfate	

* May cause slight lightening/deglossing on all colors after 16 hours or frequent exposure. Since Meganite® Acrylic Solid Surface material is uniform throughout, any change in appearance affects only the top layer and does not impact the structure or performance of material.

** May cause slight darkening after 16 hours exposure.

CLASS II REAGENTS

Exposure to the following materials, regardless of duration, may cause damage. This damage is more noticeable on dark, grey, and bright colors, while less visible on light white, off-white, and light beige shades. In dark colors, the damage may appear as white hazy spots (see photos below for examples).

Light stains may be removed by scrubbing with a household cleanser, a Scotch-Brite™ pad, and water. However, loss of gloss or a hazy appearance may persist even after cleaning. For more stubborn surface stains, sanding with fine to coarse sandpaper may be required, followed by standard finishing procedures. We recommend hiring professional solid surface fabricators or following our sanding guidelines for proper removal.

Once the surface is damaged, it may or may not be fully repairable through sanding. Therefore, Meganite® Solid Surface is not recommended for areas where it is likely to come into contact with CLASS II reagents.

acetic acid (>90%)	cresol	methyl methacrylate	phenol (>40%)
acid drain cleaners	dioxane	methylene chloride-based	phosphoric acid (>75%)
aqua regia	formic acid (>50%)	paint removers	photographic film developer (used)
Chlorobenzene	furfural	brush cleaners	sodium hydroxide (>50%)
chloroform (100%)	hydrofluoric acid (48%)	some metal cleaners	sulfuric acid (>77%)
Chromic trioxide acid	Luralite mix (50/50)	nitric acid (>25%)	trichloroacetic acid (>10%)

IF YOU HAVE QUESTIONS, PLEASE CONTACT MEGANITE SOLID SURFACE REPRESENTATIVES, AUTHORIZED FABRICATORS, DISTRIBUTORS OR EMAIL US AT INFO@MEGANITE.COM.

ALL TECHNICAL BULLETINS CAN BE FOUND @ WWW.MEGANITE.COM