

# CORIAN® SOLID SURFACE CHEMICAL RESISTANCE

## INTRODUCTION

This technical bulletin discusses the chemical resistance of Corian® Solid Surface. Corian® Solid Surface with Resilience Technology™ offers similar chemical resistance, but renewing the surface may be easier with some chemicals. Chemical resistance is evaluated by placing a material on Corian® Solid Surface and covering it for 16 hours. Time of exposure is an important factor; prompt removal of chemicals will prevent most damage.

The concentration tested is listed where applicable, unless specified the chemical is a solution in water. Use caution if using higher concentrations as they may increase the likelihood of damage. Concentrations reported

as <X% were tested at multiple concentrations, with the result indicated up to the listed concentration.

## A. CLASS I REAGENTS

The following reagents generally show no permanent effect on Corian® Solid Surface sheet when left in contact for periods of 16 hours. Wipe the surface clean using adequate personal protection for the chemical such as gloves and eye protection. Any chemical residues may be removed with a wet Scotch-Brite™ pad and bleaching cleanser. Sometimes, minimal effects have been observed, particularly those indicated by footnotes (\* † ‡).

acetic acid (10%)	ethyl ether†	methyl red (1%)	sodium sulfate
acetone	eucalyptol	mineral oil	soy sauce
ammonium hydroxide (<28%) (ammonia in water)	ferric chloride	mustard	sugar (sucrose)
amyl acetate	food colouring	nail polish	sulfuric acid (<60%)
amyl alcohol	formalin (10% neutral buffered formaldehyde)	nail polish remover (acetone)	tannic acid
aromatic ammonia (smelling salts)	gasoline	naphthalene (naphtha)	tea
ball point pen ink	gentian violet (crystal violet)	n-Hexane	tetrahydrofuran (THF)
benzene†	hair dyes	nitric acid (<6%)	tetramethylrhodamine
bleach (household type)	hemastoxlin stain	olive oil	thymol (alcohol solution)
blood	household soaps	pencil lead	toluene
butanol (butyl alcohol)	hydrochloric acid (<30%)	perchloric acid	tomato sauce
calcium thiocyanate (78%)	hydrogen peroxide	permanent marker ink	trisodium phosphate (30%)
carbon disulfide	iodine (1% in alcohol)‡	phenolphthalein (1%)	trypan blue
carbon tetrachloride	iodine, tincture of	phosphorus pentoxide	urea (6%)
cigarette (nicotine)	isopropanol (isopropyl alcohol)†	potassium permanganate (2%)	uric acid
citric acid (10%)	kerosene	povidone-iodine (PVP-I), "Betadine" Solution	urine
coffee	ketchup	saffron	vinegar
cooking oils	lemon juice	salt (sodium chloride)	washable inks
cotton seed oil	lipstick	shoe polish	wine (all varieties)
dimethyl formamide	liquid shoe polish	silver nitrate (10%)	Wright's stain
dishwashing liquids/powders	lye (1%)	sodium bisulfate	xylenes
ethyl acetate (in acetone-free nail polish remover)	methanol†	sodium hydroxide flake†	zinc chloride
ethanol (ethyl alcohol)†	methyl ethyl ketone (MEK)	sodium hydroxide solution (<40%)†	zinc oxide (paste, ointment)
	methyl orange (1%)	sodium hypochlorite (<15%)	

\* May cause surface etching or deglossing after 16 hours exposure

† May cause slight lightening after 16 hours exposure

‡ May cause slight darkening after 16 hours exposure.

## CORIAN® SOLID SURFACE CHEMICAL RESISTANCE

### B. CLASS II REAGENTS

Corian® Solid Surface is not recommended for working areas where it likely to come in contact with CLASS II reagents. Concentrations reported as >X% were tested at multiple concentrations, with the result indicated above the listed concentration. The occasional stain that might result from inadvertent exposure to Class II reagents can often be removed. Scrubbing with household cleanser will remove light stains. More stubborn surface stains will require sanding with fine to coarse sandpaper, followed by typical fabrication finishing steps. Exposure to the following materials may cause damage that requires sanding for complete removal.

acetic acid (>90%)	methyl methacrylate
acid drain cleaners	methylene chloride
aqua regia	methylene chloride-based products: paint removers, brush cleaners, some metal cleaners
chlorobenzene	
chloroform (100%)	nitric acid (>25%)
resol	phenol (>40%)
dioxane	phosphoric acid (>75%)
formic acid (>50%)	sodium hydroxide (>50%)
furfural	sulfuric acid (>77%)
hydrochloric acid 10M	trichloroacetic acid (>10%)
hydrofluoric acid (48%)	

### C. SPECIALIZED PRODUCTS

#### C.1. BIOCHEMISTRY

Biochemistry staining agents will stain Corian® Solid Surface in most instances after a few minutes exposure. These stains can often be removed by prompt scrubbing with acetone. Residual stains may be restored by scrubbing with a Scotch-Brite™ cleaning pad. Example stains are listed, but all staining agents should be handled with caution and promptly removed if spilled.

acridine orange	safranine (safranin)
gentian violet (crystal violet)	

#### C.2. DENTAL

Dental treatment materials may degloss, etch, or slightly stain Corian® surfaces. Affected areas may be restored by scrubbing with a wet Scotch-Brite™ cleaning pad. Dental products are often proprietary blends of materials. The SDS may list some, but generally not all of the components. One common component is eugenol, which may affect the surface if not removed promptly.

*Products that are not listed may be similar to the ones that are. Please compare the ingredients listed on their label or in their Safety Data Sheet (SDS) to the ones mentioned.*

The published results are for 16 hours exposure time. In many cases actual exposure is much less as the material may be removed or evaporate. But, in some cases exposure can be much longer. A leaking hand-soap dispenser may cause a liquid puddle under for periods greater than 16 hours, days, or more. Similarly some containers have poorly designed spouts/caps from which product leaks every time they are used, so that they stand constantly the spilled material. If needed, a drip cup or a spill tray of a suitable material would address these situations.

The resistance to staining of Corian® Joint Adhesive is slightly less than that of Corian® Solid Surface sheet and shape.

PLEASE VISIT OUR WEB SITE: [WWW.CORIAN.COM](http://WWW.CORIAN.COM) OR CONTACT YOUR CORIAN® REPRESENTATIVE FOR MORE INFORMATION ABOUT CORIAN® SOLID SURFACE

This information is based on technical data that E. I. du Pont de Nemours and Company and its affiliates ("DuPont") believe to be reliable, and is intended for use by persons having technical skill and at their own discretion and risk. DuPont cannot and does not warrant that this information is absolutely current or accurate, although every effort is made to ensure that it is kept as current and accurate as possible. Because conditions of use are outside DuPont's control, DuPont makes no representations or warranties, express or implied, with respect to the information, or any part thereof, including any warranties of title, non-infringement of copyright or patent rights of others, merchantability, or fitness or suitability for any purpose and assumes no liability or responsibility for the accuracy, completeness, or usefulness of any information. This information should not be relied upon to create specifications, designs, or installation guidelines. The persons responsible for the use and handling of the product are responsible for ensuring the design, fabrication, or installation methods and process present no health or safety hazards. Do not attempt to perform specification, design, fabrication, or installation work without proper training or without the proper personal protection equipment. Nothing herein is to be taken as a license to operate under or a recommendation to infringe any patents. DuPont shall have no liability for the use of or results obtained from such information, whether or not based on DuPont's negligence. DuPont shall not be liable for (i) any damages, including claims relating to the specification, design, fabrication, installation, or combination of this product with any other product(s), and (ii) special, direct, indirect or consequential damages. DuPont reserves the right to make changes to this information and to this disclaimer. DuPont encourages you to review this information and this disclaimer periodically for any updates or changes. Your continued access or use of this information shall be deemed your acceptance of this disclaimer and any changes and the reasonableness of these standards for notice of changes.

Copyright© 2018 E. I. du Pont de Nemours and Company. The Corian® Solid Surface Logo and Corian® are trademarks of E. I. du Pont de Nemours and Company or its affiliates. All rights reserved.