

Resistance to Staining Reagents

We extensively test all of our products in order to determine how our different flooring products will perform in use — and in particular, how the flooring will react to staining reagents. Owners and specifiers know the types of substances that may potentially stain surfaces in their building. This chart is designed to provide owners and specifiers with accurate information about a wide variety of cleaners, disinfectants, foods, beverages, oils, organic solvent and other substances that may be found in buildings and affect the performance of the floor.

<b>Organic Solvents</b>	<b>Safety Zone Tile</b>
Acetone	1
Chloroform	1
Ethyl Acetate	1
Ethyl (Denatured) Alcohol	0
Ethyl Ether	0
Ethylene Glycol (Antifreeze)	0
Formaldehyde - 10%	0
Gasoline	0
Isopropyl Alcohol	0
Kerosene	1
Methyl ethyl ketone (M.E.K.)	1
Mineral Spirits	0
Toluene	0
Trichloroethylene	0
Turpentine	0
Xylene	0
<b>Alkali (Bases)</b>	<b>Safety Zone Tile</b>
Ammonium Hydroxide - 30%	0
Potassium Hydroxide - 15%	1
Sodium Hydroxide - 50%	0
<b>Acids</b>	<b>Safety Zone Tile</b>
Acetic Acid - 28%	0
Acetic Acid - Glacial	0
Hydrochloric - 38%	0
Lactic Acid - 10%	0
Nitric Acid - 15%	0
Phosphoric Acid - 85%	0
Sulfuric Acid - 40%	0
Sulfuric Acid - 10%	0

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<b>Salt Solutions</b>		<b>Safety Zone Tile</b>
Calcium Chloride - Sat'd		0
Copper Sulfate - 10%		0
Ferric Chloride - 10%		2
Silver Nitrate - 1%		0
<b>Medical Stains &amp; Reagents</b>		<b>Safety Zone Tile</b>
Aniline Blue - 2.5%		0
Auramine Rhodamine		3
Basic Fuchsin		2
Betadine ® Skin Cleanser		0
Betadine ® Solution - 10%		1
Bromcresol Green		1
Carbol Fuchsin		1
Eosin - 1%		1
Gentian Violet - 2%		2
Glutaraldehyde		0
Iodine Tincture		2
Iodine Gram Stain		1
Iodoform - 1%		0
Lugol's Solution		3
Merthiolate Tincture		0
Methylene Blue		1
Picric Acid - 1%		1
Potassium Permanganate - 0.5%		0
Tincture of Benzoin		3,R
Urea Solution		0
Wright's Blood Stain		1
<b>Disinfectants and Cleaners</b>		<b>Safety Zone Tile</b>
Bleach - 5.25% sodium hypochlorite		0
Comet Bathroom Cleaner		0
Hydrogen Peroxide		0
Lysol ® Liquid Disinfectant		0

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<b>Food Service</b>	<b>Safety Zone Tile</b>
Catsup	0
Coffee - Hot Black	1
Cola Drink	0
French Dressing	0
Mustard	3
Red Food Color	1
Red Wine	0
Soy Sauce	0
Spaghetti Sauce	0
Tea - Hot Black	0
Tomato Paste	1
<b>Office</b>	<b>Safety Zone Tile</b>
Ball Pen Ink	3
Carbon Paper Smudge	1
Fountain Pen Ink	0
Lead Pencil	0
Permanent Black Marker	3
Red Crayon	1,R
Red Tempura Paint	2
<b>Oils</b>	<b>Safety Zone Tile</b>
Beef Tallow - Hot	0
Canola Oil	0
Cottonseed Oil	0
Brake Fluid	0
Dextron Transmission Fluid	0
Mineral Oil	0
Olive Oil	0
SAE #10 Oil	0
30 wt. Non-Detergent Oil	0
Used Motor Oil	1
<b>Miscellaneous</b>	<b>Safety Zone Tile</b>
Asphalt Driveway Sealer	1
Blue Chalk	0
Black Rit Dye	0
Eye Shadow	0
Hair Color	3
Lipstick	2
Perfume	0
Red Candle Wax	1
Red Nail Polish	3,R
Shoe Polish - Liquid Brown	2
Shoe Polish - Paste Brown	3,R

Samples were tested as manufactured (no additional surface treatments). All samples were exposed to reagents for 4 hours (uncovered), then cleaned with a neutral commercial cleaner and cotton cloth.

A key for interpreting results is found below. It is important to note that in some cases, residual stain, residues and surface dulling may be further reduced or eliminated with different or more aggressive cleaning procedures and/or cleaning agents other than the common method used for this multi-product comparison. For further details on appropriate cleaning methods and care for specific products, please consult the care and maintenance guidelines for the specific product at [www.armstrongflooring.com](http://www.armstrongflooring.com) or contact Armstrong at 888-276-7876.

- 0 No Stain
- 1 Slight
- 2 Moderate
- 3 Severe
- BI Bleaching
- D Dulling
- G Gloss up
- S Softening
- R Reagent left a residue

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