



#### SOAPS AND DETERGENTS

■ Dyes for Household, Institutional, and Industrial Chemical Compounding

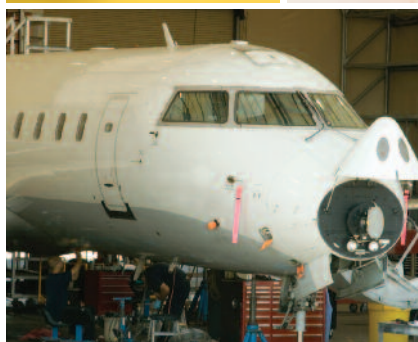
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## Handbook of Industrial Color Compounds

**KEYSTONE ANILINE CORPORATION** has over 80 years of experience in servicing and manufacturing colors for industrial products. This Handbook of Industrial Color Compounds is designed to simplify the color selection process for use in your formulations.





Keystone Aniline Corporation is the largest custom supplier and formulator of dyes and specialty colorants in the USA. Keystone's full service laboratories are available to provide technical service and support for applications ranging from color matching to product formulation.

We understand that color selection is a critical part of growing your business, so please feel free to contact us to discuss how we can be of assistance.








## DYES FOR HOUSEHOLD, INSTITUTIONAL, AND INDUSTRIAL CHEMICAL COMPOUNDING

Keystone Aniline Corporation offers a wide range of colors that can be used in both liquid and powder detergents. These dyes and optical brighteners have a very high degree of solubility in warm water and are generally stable to alkaline conditions.

### Optical Brighteners

Product Name	KAC Code
 Keyfluor White CBS-X	915-351-50
 Keyfluor White AMS-GX	915-412-50
 Keyfluor White 5BM-GX	915-028-62
 Keyfluor White ST Liquid	915-028-41

### Liquid Dye Concentrates

Product Name	KAC Code	Color Shade
 Keyamine Turquoise 8GL Liq	205-086-42	Turquoise Blue
 Keyazine Rhodamine B Liq	703-010-41	Bright Pink
 Keyacid Orange Y Liquid	501-007-40	Orange
 Keyacid Tartrazine Supra Liq	801-023-33	Yellow
 Keyacid Metanil Yellow Liq	801-036-43	Golden Yellow
 Keyacid Uranine K Liq	801-073-42	Bright Fluorescent
 Keyacid Green G-AF Liq	401-025-42	Blue Green










### Dye Powders

Product Name	KAC Code	Color Shade
 Keyamine Turquoise G	205-086-50	Turquoise Blue
 Keyacid Brilliant Blue RA	201-080-51	Royal Blue
 Keyacid Blue GS	201-145-50	Mid Shade Blue
 Keyacid Croceine Scarlet MOO	601-073-50	Scarlet Red
 Keyacid Rubine BA Conc	601-014-50	Ruby Red
 Keyazine Rhodamine B Conc	703-010-50	Bright Pink
 Keyacid Orange YA	501-007-50	Orange
 Keyacid Tartrazine Conc	801-023-50	Yellow
 Keyacid Metanil Yellow	801-036-51	Golden Yellow
 Keyacid Uranine Conc	801-073-52	Bright FL Yellow
 Keyacid Naphthol Green B	401-001-40	Green
 Keyacid Green G Extra	401-025-51	Blue Green








## DYES FOR CAR WASH SOAPS AND DETERGENTS

Keystone Aniline Corporation offers a variety of dyes that are widely used for car wash cleaning compounds and detergents. These dyes have a very high degree of solubility in water and can readily be incorporated into soaps and other cleaning compounds as powders or liquids. These dyes are most widely used as indicators in cleaning compounds, and provide a vibrant display of rainbow colors in Car Wash Triple Foam Products.

### Liquid Concentrates

Product Name	KAC Code	Color Shade
 <b>Keyacid Blue FG Liquid</b>	201-009-00	Slightly Green Shade Blue
 <b>Keyamine Turquoise 8GL</b>	205-086-42	Turquoise Blue
 <b>Keyacid Red XB Liquid</b>	601-052-33	Vibrant Blue Shade Red
 <b>Keyacid Orange Y Liquid</b>	501-007-40	Orange
 <b>Keyacid Tartrazine Supra Liquid</b>	801-023-33	Mid-Shade Yellow
 <b>Keyacid Uranine K Liquid</b>	801-073-42	Brilliant FL Yellow
 <b>Keyacid Green OEM Liquid</b>	401-741-44	Brilliant FL Green

### Powders
















Product Name	KAC Code	Color Shade
 <b>Keyacid Blue FG</b>	201-009-50	Slightly Green Shade Blue
 <b>Keyamine Turquoise G</b>	205-086-50	Turquoise Blue
 <b>Keyacid Red XB 100%</b>	601-052-40	Vibrant Blue Shade Red
 <b>Keyacid Fast Orange YA</b>	501-007-50	Orange
 <b>Keyacid Tartrazine Conc</b>	801-023-50	Mid-Shade Yellow
 <b>Keyacid Uranine Conc</b>	801-073-52	Brilliant FL Yellow
 <b>Keyacid FL Green 6040</b>	401-741-50	Brilliant FL Green



## pH STABLE DYES FOR WATER-BASED SYSTEMS



















Keystone Aniline Corporation offers a wide range of colors for use in extreme pH ranges. Coloring products with high or low pH can be difficult, due to the harsh environment. Chemical and pH extremes may stress the dye molecule until it breaks, or perhaps even change the solvent value of the product, rendering the dye unsuitable. The chemical reactions within a product may affect the properties of the dye over time. Therefore, even when using dyes with good stability profiles, full stability testing must be done on both product and product efficacy.

### Dyes Stable in Acid (pH 2.5 to 7.0)

Product Name	KAC Code	Color Shade
 <b>Keyacid Brilliant Blue RA **</b>	201-080-51	Mid Shade Blue
 <b>Keyacid Blue GS **</b>	201-145-50	Mid Shade Blue
 <b>Keyazine Blue 2B **</b>	203-009-51	Royal Blue
 <b>Keyacid Blue FG</b>	201-009-50	Turquoise Blue
 <b>Keyacid Fast Blue RB</b>	201-025-51	Mid Shade Blue
 <b>Keyacid Brilliant Green 175%</b>	401-025-70	Blue Shade Green
 <b>Keyacid Fast Green 5050</b>	401-615-50	Mid Shade Green
 <b>Keyacid Fast Yellow 2G **</b>	801-017-50	Yellow
 <b>Keyacid Tartrazine Conc **</b>	801-023-50	Red Shade Yellow
 <b>Keyacid Yellow 3GL 125%</b>	801-034-50	Bright Yellow
 <b>Keyacid Red GN **</b>	601-001-49	Bright Red
 <b>Keyacid Rubine BA Conc</b>	601-014-50	Bluish Red
 <b>Keyacid Red XB 100%</b>	601-052-40	Fluorescent Bright Red
 <b>Keyacid Croceine Scarlet MOO</b>	601-073-50	Scarlet Red
 <b>Keyacid Black BR Conc</b>	101-001-50	Black

*\*\*Stable to pH of 1 in some systems*

### Dyes Stable in Base (pH 7.0 to 11.0)

Product Name	KAC Code	Color Shade
 <b>Keyacid Brilliant Blue RA</b>	201-080-51	Mid Shade Blue
 <b>Keyacid Blue GS **</b>	201-145-50	Mid Shade Blue
 <b>Keyamine Turquoise G</b>	205-086-50	Turquoise
 <b>Keyacid Fast Blue RB</b>	201-025-51	Mid Shade Blue
 <b>Keyacid Brilliant Green 175%</b>	401-025-70	Blue Shade Green
 <b>Keyacid Fast Green 5050</b>	401-615-50	Mid Shade Green
 <b>Keyacid Green SAP</b>	401-609-52	Yellow Shade Green
 <b>Keyacid Uranine Conc</b>	801-073-52	Fluorescent Yellow
 <b>Keyacid Tartrazine Conc **</b>	801-023-50	Red Shade Yellow
 <b>Keyacid Yellow 3GL 125%</b>	801-034-50	Bright Yellow
 <b>Keyacid Metanil Yellow</b>	801-036-51	Golden Yellow
 <b>Keyacid Orange YA</b>	501-007-50	Orange
 <b>Keyacid Red GN **</b>	601-001-49	Bright Red
 <b>Keyacid Rubine BA Conc **</b>	601-014-50	Bluish Red
 <b>Keyazine Rhodamine B</b>	703-010-50	Fluorescent Bright Red
 <b>Keyacid Croceine Scarlet MOO</b>	601-073-50	Scarlet Red
 <b>Keyacid Black BR Conc</b>	101-001-50	Black
 <b>Keyacid Black WA BR Conc</b>	101-052-50	Black

*\*\*Stable to pH of 13.0 in some systems*











## DYES FOR ANTIFREEZE, DE-ICERS, AND WASHER FLUIDS

Keystone Aniline Corporation offers a variety of dyes that are widely used to color antifreeze. These dyes have a very high degree of solubility in water/glycol systems and can readily be incorporated into the coolant formulation as powders or liquids. These dyes are often used to differentiate coolant products or to impart a select color into the formulation.











Dyes used to color antifreeze must not only be soluble in the coolant formulation and impart the desired color, but they must also be stable at elevated temperatures. Keystone Aniline Corporation has a select pallet of dyes that cover a wide spectrum of colors and are suitable for use in coolant systems.



### Liquid Concentrates

Product Name	KAC Code	Color Shade
 <b>Keyacid Blue FG Liquid</b>	201-009-00	Green Shade Blue
 <b>Keyamine Bond Blue A Liquid</b>	205-199-48	Turquoise Blue
 <b>Keyacid Green G-AF Liquid</b>	401-025-42	Blue Shade Green
 <b>Keyacid Green OEM Liquid</b>	401-741-44	Brilliant FL Green
 <b>Keyacid Uranine K Liquid</b>	801-073-42	Brill FL Yellow
 <b>Keyacid Tartrazine W Supra Liq</b>	801-023-33	Red Shade Yellow
 <b>Keyacid Orange Y Liquid</b>	501-007-40	Orange
 <b>Keyacid FL Orange DexCool</b>	530-601-42	DexCool Orange
 <b>Keyacid Red XB Liquid</b>	601-052-33	FL Blue Shade Red
 <b>Rhodamine WT Liquid</b>	703-010-27	FL Blue Blue Red

### Powders






Product Name	KAC Code	Color Shade
 <b>Keyacid Blue FG</b>	201-009-50	Green Shade Blue
 <b>Keyamine Turquoise FBL 400%</b>	205-199-61	Turquoise Blue
 <b>Keyacid Alizarine Green 175%</b>	401-025-70	Blue Shade Green
 <b>Keystone Antifreeze Green</b>	401-718-50	Mid Shade Green
 <b>Keyacid FL Green 6040</b>	401-741-50	Brill FL Green
 <b>Keyacid Uranine Conc</b>	801-073-52	Brill FL Yellow
 <b>Keyacid Quinoline Yellow</b>	801-003-71	Mid Shade Yellow
 <b>Keyacid Tartrazine Conc</b>	801-023-50	Red Shade Yellow
 <b>Keyacid Fast Orange YA</b>	501-007-50	Orange
 <b>Keyacid Red XB 100%</b>	601-052-40	FL Blue Shade Red





## DYES FOR NON-DESTRUCTIVE TESTING APPLICATIONS (NDT)

Keystone Aniline Corporation offers a variety of dyes that are widely used for non-destructive testing applications. These dyes are readily incorporated into the penetrant and can easily be viewed by eye or under black light, depending on the chemistry of the dye and the particular application.

### Oil and Solvent Soluble

Product Name	KAC Code	Color Shade
 <b>Keystone Liquid Oil Red HF</b>	606-429-50	Highly Concentrated Liquid Dye
 <b>Keystone Liquid Oil Blue HF</b>	206-098-31	Highly Concentrated Liquid Dye
 <b>Keyplast FL Yellow R</b>	806-043-50	Brill Yellow FL Under Black Light
 <b>Keyfluor White RWP Conc</b>	950-010-55	Brill Blue FL Under Black Light
 <b>Keyfluor White OB</b>	915-426-51	Brill Blue FL Under Black Light

### Water Soluble

Product Name	Product Code	Color Description
 <b>Keystone Uranine K Liquid</b>	801-073-42	Bright Yellow FL Under Black Light
 <b>Keyfluor White ST Liquid</b>	915-028-41	Brill Blue FL Under Black Light













## LIQUID OIL DYES

KEYSTONE LIQUID OIL DYES are concentrated solvent soluble dyes provided in 2 liquid forms:




- 1) Xylene
- 2) High Flash, Hydro-Treated Aromatic

KEYSTONE LIQUID OIL DYES have been found to be completely miscible in all petroleum fuels, lubricating oils, hydraulic oils, greases, and many other related hydrocarbon solvents. Common applications include the coloration of lubricants, such as Automatic Transmission Fluids (ATF), leak detection, fuels, polishes, explosives, adhesives, and a variety of other solvents.

### Xylene

Product Name	Product Code
 <b>Keystone Liquid Oil Red</b>	606-164-32
 <b>Keystone Liquid Oil Red G</b>	606-165-31
 <b>Keystone Liquid Oil Blue</b>	206-098-42
 <b>Keystone Liquid Oil Yellow</b>	806-107-51
 <b>Keystone Liquid Oil Yellow 5G</b>	806-417-50
 <b>Keystone Liquid Oil Orange #2</b>	506-410-50
 <b>Keystone Liquid Oil Green 1M</b>	406-405-42
 <b>Keystone Liquid Oil Purple</b>	706-404-40
 <b>Keystone Liquid Oil Brown</b>	306-405-41
 <b>Keystone Liquid Oil Black</b>	106-400-50

### High Flash Hydro-Treated

Product Name	Product Code
 <b>Keystone Liquid Oil Red HF</b>	606-429-50
 <b>Keystone Liquid Oil Blue HF</b>	206-098-31
 <b>Keystone Liquid Oil Yellow HF</b>	806-107-52

### Recommended Dosage












The following recommendations are provided as a starting point for typical applications. Actual dosage will depend on desired color strength as well as background color of the base material.

FUELS	5 to 20 mg/l	0.5 to 2.0 lbs/1,000 gallons
LUBRICANTS	50 to 200 mg/l	5 to 20 lbs/1,000 gallons
GREASES	500 to 2,000 mg/l	50 to 200 lbs/1,000 gallons









## DYES FOR ADHESIVES

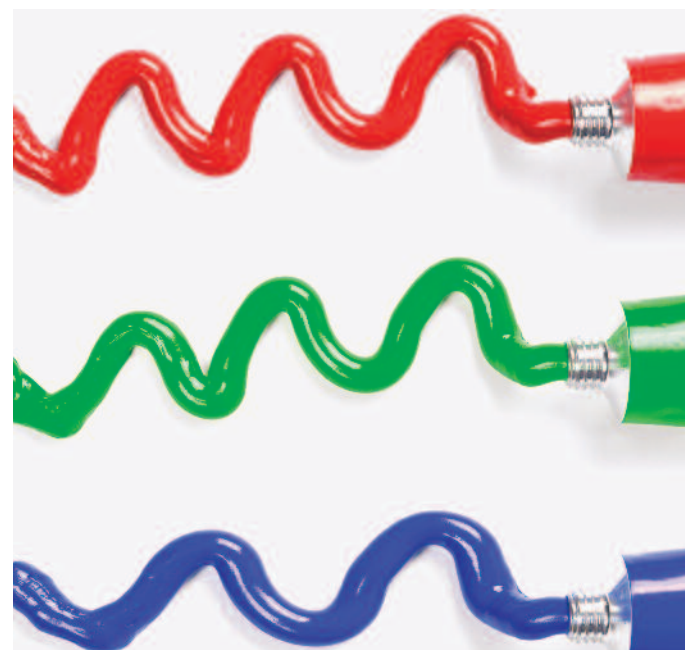
Keystone Aniline Corporation offers a broad selection of dyes that are widely used for solvent and water-based adhesives. The dyes selected below have excellent solubility in the recommended system and provide a noticeable vibrant color to the adhesive. The optical brighteners are clear in the adhesive system and provide a bright fluorescent when excited by black light.

### Solvent Adhesive Systems

Product Name	Product Code	Color Shade
 <b>Keyplast Blue A</b>	206-036-51	Blue
 <b>Keyplast Green B</b>	406-003-50	Green
 <b>Keyplast Yellow 2GH</b>	806-072-51	Red Shade Yellow
 <b>Keystone Oil Yellow 2635</b>	806-056-50	Yellow
 <b>Keyplast Orange R</b>	806-014-50	Orange
 <b>Keyplast Red OB</b>	606-026-50	Red
 <b>Keystone Rhodamine B Base</b>	606-049-50	Fluorescent Red
 <b>Keyplast Violet IRS</b>	706-013-50	Violet
 <b>Keystone Nigrosine O2P</b>	101-002-44	Black
 <b>Keyplast Black AMX</b>	106-655-50	Black
 <b>Keyfluor White RWP</b>	950-010-55	Optical Brightener

### Water-Based Adhesive Systems

Product Name	Product Code	Color Shade
 <b>Keyamine Turquoise 8GL</b>	205-086-50	Turquoise Blue
 <b>Keystone Pyranine 120</b>	406-007-60	FL Green Shade Yellow
 <b>Keyacid Uranine Conc</b>	801-073-52	Fluorescent Yellow
 <b>Keyacid Tartrazine Conc</b>	801-023-50	Yellow
 <b>Keyacid Rubine BA Conc</b>	601-014-50	Rubine Red
 <b>Keyacid Red XB 100%</b>	601-052-40	Fluorescent Red
 <b>Keyacid Fast Violet FRL</b>	701-048-50	Violet
 <b>Keyfluor White ST Liquid</b>	915-028-41	Optical Brightener



## CERTIFIED COLORS FOR FOODS, DRUGS, AND COSMETICS

### Foods, Drugs, and Cosmetics (FD&C Certified Dyes)

Product Name	KAC Code	Type
FD&C Blue #1	220-405-xx	W
FD&C Blue #2	220-406-xx	W
FD&C Red #3	620-408-xx	W
FD&C Red #4	620-409-xx	W
FD&C Red #40	620-431-xx	W
FD&C Yellow #5	820-404-xx	W
FD&C Yellow #6	820-405-xx	W

### Drugs and Cosmetics (D&C Certified Dyes)

Product Name	KAC Code	Type
D&C Blue #6	220-408-xx	P
D&C Blue #9	220-409-xx	P
D&C Green #5	420-401-xx	W
D&C Green #6	420-402-xx	E&O
D&C Green #8	420-403-xx	E&W
D&C Orange #4	520-401-xx	E&W
D&C Red #6	620-421-xx	W
D&C Red #17	620-428-xx	E&O
D&C Red #22	620-405-xx	W
D&C Red #28	620-401-xx	W
D&C Red #30	620-443-xx	P
D&C Red #33	620-415-xx	W
Ext D&C Violet #2	720-402-xx	E&W
D&C Yellow #7	820-415-xx	E&A
D&C Yellow #8	820-412-xx	E&W
D&C Yellow #10	820-402-xx	W

### Foods, Drugs, and Cosmetics (FD&C Certified Aluminum Lakes)

Product Name	KAC Code	Type
FD&C Blue #1 AL LK	220-420-xx	Lake
FD&C Red #40 AL LK	620-442-xx	Lake
FD&C Yellow #5 AL LK	820-410-xx	Lake
FD&C Yellow #6 AL LK	820-426-xx	Lake

*E – External Only; O – Oil Soluble; W – Water Soluble;  
P – Pigment; A – Alkaline Solution*

*Available in low, medium, and high strength*

- In addition to supplying the most comprehensive line of colorants available, at **Keystone Aniline Corporation** we are committed to providing our customers with the best technical information available. Call **1-800-522-4DYE** for samples or technical assistance.
- Please give us a call or visit our web site at **www.dyes.com**
- As a Keystone customer, you will have direct access to professionals who can answer technical questions and provide timely assistance. Please feel free to contact us for samples of our dyes, technical specifications, or for formulating assistance.

DISCLAIMER: These data were obtained by testing according to our methods, with any necessary test deviations. Other test methods may give different results. Incoming evaluations, by the customer is therefore unconditionally recommended. The use and application of our colorants and information included is without any warranty, whether expressed or implied, verbal or written. No statements of recommendation contained in this product literature is to be construed as inducement to infringe on any relevant patent now or hereafter in existence.

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