



SOAPS AND DETERGENTS

■ Dyes for Household, Institutional, and Industrial Chemical Compounding

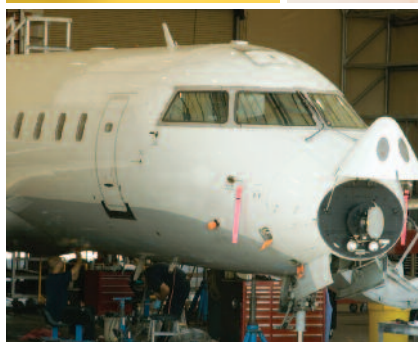
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Handbook of Industrial Color Compounds

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

Powders
















Product Name	KAC Code	Color Shade
 Keyacid Blue FG	201-009-50	Slightly Green Shade Blue
 Keyamine Turquoise G	205-086-50	Turquoise Blue
 Keyacid Red XB 100%	601-052-40	Vibrant Blue Shade Red
 Keyacid Fast Orange YA	501-007-50	Orange
 Keyacid Tartrazine Conc	801-023-50	Mid-Shade Yellow
 Keyacid Uranine Conc	801-073-52	Brilliant FL Yellow
 Keyacid FL Green 6040	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
 Keyacid Brilliant Blue RA **	201-080-51	Mid Shade Blue
 Keyacid Blue GS **	201-145-50	Mid Shade Blue
 Keyazine Blue 2B **	203-009-51	Royal Blue
 Keyacid Blue FG	201-009-50	Turquoise Blue
 Keyacid Fast Blue RB	201-025-51	Mid Shade Blue
 Keyacid Brilliant Green 175%	401-025-70	Blue Shade Green
 Keyacid Fast Green 5050	401-615-50	Mid Shade Green
 Keyacid Fast Yellow 2G **	801-017-50	Yellow
 Keyacid Tartrazine Conc **	801-023-50	Red Shade Yellow
 Keyacid Yellow 3GL 125%	801-034-50	Bright Yellow
 Keyacid Red GN **	601-001-49	Bright Red
 Keyacid Rubine BA Conc	601-014-50	Bluish Red
 Keyacid Red XB 100%	601-052-40	Fluorescent Bright Red
 Keyacid Croceine Scarlet MOO	601-073-50	Scarlet Red
 Keyacid Black BR Conc	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
 Keyacid Brilliant Blue RA	201-080-51	Mid Shade Blue
 Keyacid Blue GS **	201-145-50	Mid Shade Blue
 Keyamine Turquoise G	205-086-50	Turquoise
 Keyacid Fast Blue RB	201-025-51	Mid Shade Blue
 Keyacid Brilliant Green 175%	401-025-70	Blue Shade Green
 Keyacid Fast Green 5050	401-615-50	Mid Shade Green
 Keyacid Green SAP	401-609-52	Yellow Shade Green
 Keyacid Uranine Conc	801-073-52	Fluorescent Yellow
 Keyacid Tartrazine Conc **	801-023-50	Red Shade Yellow
 Keyacid Yellow 3GL 125%	801-034-50	Bright Yellow
 Keyacid Metanil Yellow	801-036-51	Golden Yellow
 Keyacid Orange YA	501-007-50	Orange
 Keyacid Red GN **	601-001-49	Bright Red
 Keyacid Rubine BA Conc **	601-014-50	Bluish Red
 Keyazine Rhodamine B	703-010-50	Fluorescent Bright Red
 Keyacid Croceine Scarlet MOO	601-073-50	Scarlet Red
 Keyacid Black BR Conc	101-001-50	Black
 Keyacid Black WA BR Conc	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
 Keyacid Blue FG Liquid	201-009-00	Green Shade Blue
 Keyamine Bond Blue A Liquid	205-199-48	Turquoise Blue
 Keyacid Green G-AF Liquid	401-025-42	Blue Shade Green
 Keyacid Green OEM Liquid	401-741-44	Brilliant FL Green
 Keyacid Uranine K Liquid	801-073-42	Brill FL Yellow
 Keyacid Tartrazine W Supra Liq	801-023-33	Red Shade Yellow
 Keyacid Orange Y Liquid	501-007-40	Orange
 Keyacid FL Orange DexCool	530-601-42	DexCool Orange
 Keyacid Red XB Liquid	601-052-33	FL Blue Shade Red
 Rhodamine WT Liquid	703-010-27	FL Blue Blue Red

Powders






Product Name	KAC Code	Color Shade
 Keyacid Blue FG	201-009-50	Green Shade Blue
 Keyamine Turquoise FBL 400%	205-199-61	Turquoise Blue
 Keyacid Alizarine Green 175%	401-025-70	Blue Shade Green
 Keystone Antifreeze Green	401-718-50	Mid Shade Green
 Keyacid FL Green 6040	401-741-50	Brill FL Green
 Keyacid Uranine Conc	801-073-52	Brill FL Yellow
 Keyacid Quinoline Yellow	801-003-71	Mid Shade Yellow
 Keyacid Tartrazine Conc	801-023-50	Red Shade Yellow
 Keyacid Fast Orange YA	501-007-50	Orange
 Keyacid Red XB 100%	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
 Keystone Liquid Oil Red HF	606-429-50	Highly Concentrated Liquid Dye
 Keystone Liquid Oil Blue HF	206-098-31	Highly Concentrated Liquid Dye
 Keyplast FL Yellow R	806-043-50	Brill Yellow FL Under Black Light
 Keyfluor White RWP Conc	950-010-55	Brill Blue FL Under Black Light
 Keyfluor White OB	915-426-51	Brill Blue FL Under Black Light

Water Soluble

Product Name	Product Code	Color Description
 Keystone Uranine K Liquid	801-073-42	Bright Yellow FL Under Black Light
 Keyfluor White ST Liquid	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
 Keystone Liquid Oil Red	606-164-32
 Keystone Liquid Oil Red G	606-165-31
 Keystone Liquid Oil Blue	206-098-42
 Keystone Liquid Oil Yellow	806-107-51
 Keystone Liquid Oil Yellow 5G	806-417-50
 Keystone Liquid Oil Orange #2	506-410-50
 Keystone Liquid Oil Green 1M	406-405-42
 Keystone Liquid Oil Purple	706-404-40
 Keystone Liquid Oil Brown	306-405-41
 Keystone Liquid Oil Black	106-400-50

High Flash Hydro-Treated

Product Name	Product Code
 Keystone Liquid Oil Red HF	606-429-50
 Keystone Liquid Oil Blue HF	206-098-31
 Keystone Liquid Oil Yellow HF	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

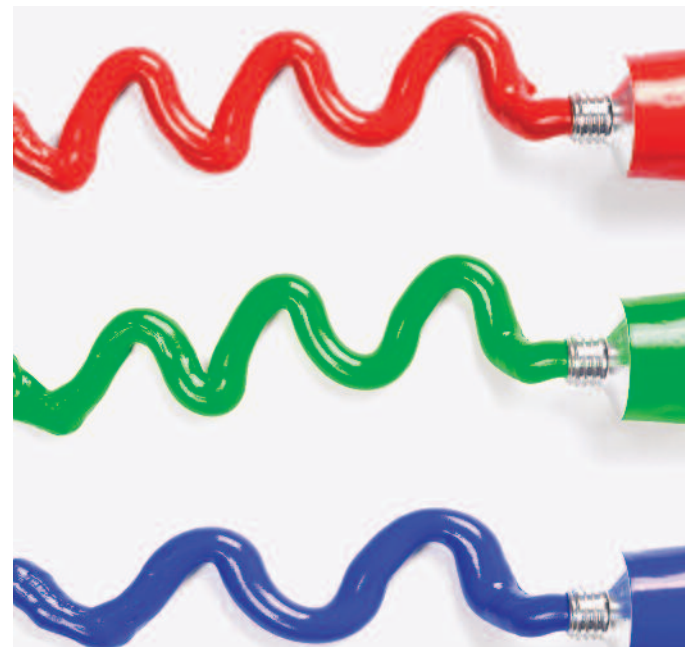
Keystone Aniline Corporation offers a broad selection of dyes that are widely used for solvent and water-based adhesives. The dyes selected below have excellent solubility in the recommended system and provide a noticeable vibrant color to the adhesive. The optical brighteners are clear in the adhesive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

Solvent Adhesive Systems

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

Water-Based Adhesive Systems

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