

SK-816 Kit

Visible Dye Penetrant Testing Kit

SK Kits are a convenient collection of Magnaflux dye penetrant testing consumable products in easy-to-use aerosol form for Type 2 penetrant non-destructive testing.

Each penetrant testing kit comes with SKL-SP2 solvent removable penetrant, SKD-S2 solvent-based developer, and SKC-S remover.

SK Kits are portable and great for job sites or field inspections to check welds, forgings, pressure vessels, castings, general metal work and many other applications.



BENEFITS

- Pre-packaged set of products provides everything needed for dye penetrant testing
- Vivid, high-contrast color
- Superior flaw resolution
- Excellent reliability
- Conveniently packed into a single box
- QPL SAE AMS 2644 Qualified Product List products

SPECIFICATION COMPLIANCE

- AECL
- AMS 2644
- ASME
- ASTM E1417
- ISO 3452
- NAVSEA 250-1500-1
- NAVSEA T9074-AS-GIB-010/271
- QPL SAE AMS 2644

APPLICATIONS

Ideal for:

- Automotive maintenance
- Castings
- Ferrous and non-ferrous metals
- Forgings
- Leak testing
- Metalworking
- Non-porous ceramics
- Pressure vessels
- Tubular goods, Welds

Defect examples:

- Cracks
- Flux inclusions
- Incomplete weld fusion
- Incomplete weld penetration
- Leaks
- Undercutting
- Weld porosity

USE RECOMMENDATIONS

NDT Method	Visible Penetrant Testing
Type	Type 2
Methods	B / C
Removal Type	Solvent Removable

PACKAGING

SK-816 Kit, 8 aerosol cans 01-5920-48

- SKC-S, 4 aerosol cans
- SKL-SP2, 2 aerosol cans
- SKD-S2, 2 aerosol cans

HEALTH AND SAFETY

Review all relevant health and safety information before using this product. For complete health and safety information, refer to the product Safety Data Sheet, which is available at www.magnaflux.com.

SKC-S

NDT Cleaner & Remover

SKC-S is an NDT-approved solvent cleaner/remover for pre-cleaning before non-destructive testing and for removing excess surface penetrant from an inspection area before applying developer during liquid penetrant testing.

This non-halogenated solvent remover can be used on a wide range of substrates to remove oils, greases and other contaminants. SKC-S dries quickly without leaving a residue, and meets the low-residue requirements for NDT and aerospace penetrant testing.



BENEFITS

Maximize range of inspections

- Inspect a wide range of components without worry
- Conforms to AMS 2644 Class 2, ASME BPVC and all major aerospace requirements

Application versatility

- Use a single cleaner throughout the entire penetrant testing process
- Comes in an aerosol form or as part of a kit for convenience

Minimize risk of missing a flaw

- Inspect reliably by cleaning only the surface without flushing penetrant out of discontinuities
- Dries quickly without leaving residue to prevent false indications

FEATURES

- AMS 2644 Class 2 nonhalogenated remover
- Fast drying
- Leaves no residue
- Suitable for use at low temperatures
- Alloy compatibility
- Doesn't over clean

APPLICATIONS

Ideal for:

- Non-destructive testing pre-cleaning
- Removing excess surface penetrant
- Post inspection cleaning
- When chlorinated solvents are undesirable or prohibited

SPECIFICATION COMPLIANCE

- AECL
- AMS 2644
- ASME BPVC
- ASTM E1417
- ASTM E165
- Boeing BAC 5423 PSD 6-46 or 8-4
- Boeing PS-21202
- General Electric P50YP107
- ISO 3452-2
- MIL-STD-2132
- MIL-STD-271
- NAVSEA 250-1500-1-REV-1
- Pratt & Whitney PMC 4366

PROPERTIES

Flash Point	> 57°F / 14°C
Density	6.29 lb/gal / 755 g/L
Corrosion	Meets AMS 2644 requirements
Non Volatile Residue	<50 ppm
NPE-Free	Yes

USE RECOMMENDATIONS

NDT Method	Non-destructive Testing
Classification	Class 2, nonhalogenated
Coverage	1 aerosol can will cover approximately 65 ft ² / 6 m ²
Usage Temperature	40 to 125°F / 5 to 52°C
Storage Temperature	50 to 86°F / 10 to 30°C

INSTRUCTIONS FOR USE

For NDT pre-cleaning:

1. Spray the surfaces to be cleaned liberally with the cleaner then either wipe off or allow to air dry, or soak a clean cloth with the cleaner and wipe the part clean.
2. Allow the part to dry thoroughly before applying the penetrant.

To remove excess surface penetrant:

1. Apply SKC-S to a cloth, wipe test surface and repeat as needed.
2. Do not spray SKC-S directly on the part because penetrant indications may be removed.

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SKL-SP2

Solvent Removable Visible Dye Penetrant

SKL-SP2 is a solvent removable penetrant for portability, especially for welding operations, and is post emulsifiable for greater resolution of flaw indications. It produces a visible red color contrast, and features outstanding penetrating characteristics. SKL-SP2 is highly reliable at locating surface open flaws and discontinuities and can be used on non-porous ceramics and similar materials. Typically used on welds, forgings, pressure vessels, castings, general metal work, leak testing, and in power plants and construction applications.

SKL-SP2 is listed on the QPL SAE AMS 2644 Qualified Product List.



BENEFITS

Fastest inspection processing

- Reliable, simple 3-step process is a convenient and easy-to-use solution for preventative maintenance and control checks
- Quickly and completely covers the entire test surface due to high surface wetting
- Remove excess penetrant without water to eliminate the need to dry parts before applying developer

Dependable and convenient to use

- Easy to carry and use in the field with the convenient aerosol cans which are carefully designed for consistent, even coverage and maximum test area coverage
- Use in all conditions without the need for darkness or UV lights

Wide application versatility

- Inspect a wide range of components without fear of corrosion or specification non-conformance
- Meets AMS 2644 and is NDT-approved for professional industrial applications

Maximum indication detection

- Produces strong, vibrant indications thanks to the bright, vibrant red color, especially when used with SKD-S2 solvent-based developer

Maximize operator comfort and safety

- Promotes better inspection quality by providing the operator with a more comfortable work environment
- Reduces discomfort from strong odors
- Exceeds all EHS requirements, does not contain NPEs or phthalates

SPECIFICATION COMPLIANCE

- AECL
- AMS 2644
- ASME
- ASTM E1417
- ASTM E165
- ISO 3452
- MIL-STD-2132
- MIL-STD-271
- NAVSEA T9074-AS-GIB-010/271
- NAVSEA 250-1500-1
- QPL SAE AMS 2644

FEATURES

- Solvent removeable
- ISO 3452 sensitivity level #2
- Can be used for Method B, Method C and Method D
- Simple, easy-to-use process
- Vivid, high-contrast red color
- Superior flaw resolution
- Good surface wetting
- Optimized capillary action
- Works in visible light
- Very low toxicity
- Low odor
- NDT-spec compliant

PROPERTIES

Flash Point	> 200°F / 93°C
Density	0.85 g/cc / 7.04 lb/gal
Viscosity (at 100°F / 38°C)	3.80 cs
NPE-Free	Yes

USE RECOMMENDATIONS

NDT Method	Penetrant Testing, Visible Dye
Type	Type 2
Method(s)	B / C / D
Sensitivity Level	ISO 3452 sensitivity level #2
Required Equipment	No special equipment needed
Usage Temperature	40 to 125°F / 5 to 52°C
Storage Temperature	50 to 86°F / 10 to 30°C
Coverage	1 aerosol can will cover approximately 65 ft ² / 6 m ²

APPLICATIONS

Defect location: open to surface

Ideal for:

- Wide range of applications
- Castings
- Forgings
- Welds
- Pressure vessels
- Metalworking
- Automotive maintenance
- Tubular goods
- Leak testing
- Ferrous and non-ferrous metals
- Non-porous ceramics

Defect examples:

- Cracks
- Leaks
- Incomplete weld penetration
- Incomplete weld fusion
- Undercutting
- Slag inclusions
- Flux inclusions
- Weld porosity

HEALTH AND SAFETY

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SKD-S2

Solvent Based Developer

A bright white, non-aqueous developer, SKD-S2 creates an opaque white background for high-contrast penetrant testing and quickly draws penetrant out to create stronger, clearer indications for better inspection reliability and sensitivity.

Noted for its compatibility with special alloys, such as stainless steel, aluminum, magnesium and titanium, SKD-S2 is non-halogenated, can be used with Type 1 & Type 2 penetrants. This solvent-based developer meets aerospace and nuclear industry requirements, and complies with all major NDT specifications, including ISO 3452.

SKD-S2 helps speed up the inspection process by going on easily, drying quickly, promoting faster indication formation and minimizing post-inspection cleaning. It is ideal for machine shops, weld testing and field applications.

SKD-S2 is listed on the QPL SAE AMS 2644 Qualified Product List and is approved by numerous Aerospace Primes including, Boeing, GE and Honeywell.



BENEFITS

Increases indication visibility

- Improves indication detection by creating an optimal surface for penetrant indication formation
- Bright white, opaque coverage blocks all underlying surface color and quickly draws penetrant to the surface for stronger, clearer indications

Application versatility

- Can be used with a variety of Type 2 and Type 1 penetrants in many different situations without measuring or diluting
- ISO 3452 conformance allows SKD-S2 to be used to inspect a wide range of parts

Faster processing and cleaning

- Reduces inspection process time by minimizing post-inspection cleaning
- Easy-to-apply formula goes on cleanly, dries quickly and promotes faster indication formation to shave time off each step of the inspection process

FEATURES

- Bright white color
- Provides good background contrast
- Nonfluorescent
- Wicks penetrant out of indications
- Fast drying
- Easy to apply
- Convenient, ready to use formula
- Very low toxicity
- Matte, opaque coating
- Easy to clean

APPLICATIONS

Defect location: open to surface

Ideal for:

- Welds
- Machine shops
- Field applications

SPECIFICATION COMPLIANCE

- AECL
- AMS 2644
- ASME BPVC
- ASTM E1417
- ASTM E165
- Boeing BAC 5423 PSD 6-46 or 8-4
- Boeing PS-21202
- GE P3TF2
- GE P50YP107
- Honeywell EMS 52309
- ISO 3452-2
- MIL-STD-2132
- MIL-STD-271
- NAVSEA 250-1500-1
- NAVSEA T9074-AS-GIB-010/271
- QPL SAE AMS 2644

PROPERTIES

Density	Bulk: 7.5 lb/gal (870 g/L)
NPE-Free	Yes

USE RECOMMENDATIONS

NDT Method	Penetrant Testing
Form(s)	d/e
Coverage	1 aerosol can will cover approximately 65 ft ² (6 m ²)
Usage Temperature	40 to 125°F / 5 to 52°C
Storage Temperature	50 to 86°F / 10 to 30°C

INSTRUCTIONS FOR USE

SKD-S2 should be applied by spray only, since dipping or brushing will cause excessive solvent action on the penetrant in discontinuities. SKD-S2 may be applied by aerosol, or conventional spray gun. SKD-S2 must be agitated during use to ensure the developer particles remain suspended during processing.

Solvent-based developers like SKD-S2 should be sprayed in thin even layers, which just wet the surface. A heavy spray will cause excessive bleeding and running of indications; whereas too light a spray will result in slow indication development as well as possible loss in overall sensitivity due to limited solvent action.

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