

# PRODUCT DATA SHEET

## SPOTCHECK®

### SKL-SP1 SOLVENT REMOVABLE PENETRANT

Classification: Type 2, Method C

General Description: Spotcheck SKL-SP1 is a solvent removable (or post emulsifiable) red color contrast penetrant. SKL-SP1 exhibits outstanding penetrating characteristics, which provide for maximum reliability in locating surface-open flaws and discontinuities. SKL-SP1 can be used over the entire spectrum of industrial applications, where a visible penetrant inspection system meets the requirements for surface-open flaw detection. SKL-SP1 has also been successfully used on non-porous ceramics and similar materials. *SKL-SP1 is not recommended for the inspection of plastic materials, as it may stain, soften or even dissolve the base material under test.*

Applications:

Welds, Forgings, Pressure Vessels, Castings, General Metal Work, Leak Testing, Power Plant Construction
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Composition: SKL-SP1 is composed of a blend of petroleum distillates, plasticizer and an oil soluble organic red dye.

Typical properties (Not a specification):

Color	Deep Red
Odor	Bland, oily
Flash point	93°C minimum
Corrosion:	Meets requirements of AMS 2644
Density:	0.85 g/ml
Viscosity @ 38°C:	3.3 centistokes
Sulfur Content:	Less than 300 ppm
Chloride Content:	Less than 300 ppm

Method of Application:

SKL-SP1 may be applied by: aerosol, dipping, flowing, brushing, conventional or electrostatic spray.

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### Penetration/Dwell Time:

The generally accepted minimum penetration time is 2 to 5 minutes. 10 minutes being adequate for most situations, although specific process specifications may require longer penetration time.

### Temperature:

SKL-SP1 should be used at temperatures between 40° F – 125° F. Lower temperatures thicken the penetrant and longer penetration times are necessary. High temperatures should be avoided since this can lead to the breakdown of the dye resulting in color fade.

### Penetrant Removal:

SKL-SP1 excess surface penetrant can be removed by either SKC-S Solvent Cleaner/Remover or ZR-10B General Purpose Hydrophilic Remover.

### Recommended Developers:

A developer is used to maximize the sensitivity and to provide a white contrasting background against which the red indications can be readily seen. Two types of developer can be used.

- *SKD-S2 and ZP-9F Solvent Developers* are quick drying materials, which may be applied by spraying. The component under test must be dry before developer application.
- *ZP-5B Water Suspensible Developer* is a developer which may be applied by dipping or spraying; after application the component must be dried before inspection.

Specification compliance: AMS-2644, AECL, ASME B & PV Code, Sec V, ASTM E1417, MIL-STD 2132, ASTM E165, MIL-STD 271

Packaging: Case of 4 – one gallon containers, 5 gallon pails, 55 gallon drums, aerosols, penetrant pens

Coverage: 1 gallon covers about 1,200 square feet  
1 aerosol can (16 ounce by volume) covers about 65 square feet