



Dye Penetrant Testing

Product Data Sheet

MR[®]79

SPECIAL CLEANER

(Non-Aqueous)

The Method

Dye penetrant testing (DPT) is a non-destructive inspection method used to detect surface flaws in materials. The process begins with surface cleaning to remove contaminants. A penetrant dye is then applied, allowed time to seep into any surface defects, and excess dye is removed. A developer is then applied, drawing the penetrant out of the flaws, making them visible against the background. The inspection can be conducted under UV light or with a contrasting colored dye, enhancing visibility. This method is effective for detecting cracks, porosity, and other defects in non-porous materials like metals, plastics, and ceramics. DPT is widely used in industries such as aerospace, automotive, and manufacturing for quality assurance purposes.

Description

MR[®]79 is a highly effective non-aqueous, non-halogenated solvent remover specifically formulated for non-destructive testing (NDT) applications. This solvent remover is designed to efficiently remove excess penetrant from the surface of inspected materials, ensuring thorough cleaning and preparation for subsequent processing or analysis.

With its rapid evaporation rate and low surface tension, MR[®]79 effectively lifts and dissolves excessive penetrant from surface discontinuities, cracks, and flaws leaving behind no residues.

This solvent remover is widely used in industries such as aerospace, automotive, manufacturing, and engineering, where precise and reliable cleaning processes are essential for accurate inspection and quality assurance.

MR[®]79 is listed on QPL-AMS-2644.



Benefits

- Reliable, easy to use
- Removes excess penetrant, effectively
- Single cleaner for pre-cleaning and excessive penetrant removal
- Versatility across various materials
- Enhances quality assurance processes
- Meets and exceeds most industry standards

Features

- Non-Halogenated
- Fast Drying
- Residue-free
- Suitable across various temperatures, including very low temperatures
- Enhances the indication quality
- Very Low toxicity
- Toluene-free.

Applications

Defect Location: Surface Cracks

Test Surface Type: All Types

Defect Types: All Types

Usage Instructions

NDT Method	Dye Penetrant Testing, visible & fluorescent
Class	Class 2, non-halogenated
Sensitivity level (ISO 3452)	2
Recommended Usage	+5°C to +52°C 41°F to 126°F

Compliances

ASME Code V, Art. 6

AMS 2644

QPL SAE AMS 2644

DIN EN ISO 3452

PMUC (EDF)

ASTM E165

ASTM E1417

RCC-M

Physical & Chemical Properties

Appearance	Clear Liquid
Chemical Composition	Mixture of Solvents
Basis	Solvent
Colour in visible light	Clear Liquid
Colour in UV light	Non-fluorescence
Odour	Characteristic - solvent like

Suggested Products

MR®62 - Solvent Removable Penetrant (red)

MR®311-R - Solvent & Water Removable Penetrant (red)

MR®70I - Developer (Non-Aqueous)

**Compatible with all the range of visible and fluorescent penetrant systems for pre-clean and intermediate cleaning.*

Safety

Dye Penetrant Inspection (DPI) is generally safe when conducted by trained professionals who follow appropriate safety measures.

Wear the appropriate safety gears while using the product. Use in a well-ventilated area.

Please read the Material Safety Data Sheet before use!

(Available at: <https://www.3akchemie.com/resources-mrchemie>)

Ingredients: Mixture of Solvents

Storage Temperature: 41°F to 113°F / +5°C to +45°C

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TDS / MSDS / TC



Notice

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Limitation of Remedies & Liabilities

If this product is proved to be defective, the exclusive remedy at 3AK CHEMIE's option shall be to refund the purchase price or to repair or to replace the defective MR® CHEMIE product. The company shall not otherwise be liable for loss or damages, whether direct or indirect, special, incidental or consequential regardless of the legal theory asserted including negligence, warranty or strict liability.

Packaging & Order Instructions

SKU	Pack Size	Case
2511-0008	Aerosol - 400ml	10
2511-0047	Bulk- 1L	6
2511-0075	Bulk - 5L	-
2511-0129	Bulk - 20L	-



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