

**ORION**

# THE ORIENTAL CHEMICAL WORKS PVT LTD

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AN ISO 9001:2015 COMPANY

## TECHNICAL INFORMATION

**PERFECT CLEANING  
BETTER INSPECTION  
INCREASE PROFITS**

### ORION 119 SERIES

#### VISIBLE DYE PENETRANT INSPECTION

Classification	:	Visible Dye Penetrant, Type II, Method C
Method of application	:	ASTM E 1417 and instructions on the product label.
Conforming to specifications	:	ASME B&PV CodeV-2019 Art 6, ASTM E -165, AMS-2466, IS: 12889:2010
Approved to	:	M&C/NDT/105/01, NPC, DGCA, DGAQA & BHEL
To be used with	:	Solvent Cleaner and Non-aqueous based Developer

#### Description:

The Orion 119 series consists of a high sensitivity visible dye penetrant capable of detecting cracks up to 20 $\mu$  depth by 1 $\mu$  width on a nickel-chrome plated test panel when tested in accordance with RDSO/M&C/NDT/105/2001, MIL-I-25135 & AMS 2644 requirements.

#### Features:

Quickly and accurately locates surface defects which otherwise is not visible to the naked eye. It is non-corrosive to metals and their alloys with extremely low levels of contaminants and ensures large area coverage with a high contrast level. Typical areas of application are in the Nuclear, Aerospace, special welding and other critical engineering components.

#### Technical:

The Orion 119 series consists of Orion 119P high sensitivity red dye penetrant which is used in conjunction with Orion 119 PR, Penetrant remover and Orion 119D, Non-aqueous developer.

<u>Properties</u>	<u>Orion 119P (Aerosol)</u>	<u>Orion 119PR (Aerosol)</u>	<u>Orion 119D (Aerosol)</u>
Appearance	Red Tracer Liquid	Clear solvent	White suspension
Classification	Type II, Method C	Non-Halogenated	Form "d"
Specific Gravity @ 30°C	Not applicable	Not applicable	Not applicable
Flash Point(ASTM D-93)	Highly inflammable	Highly inflammable	Highly inflammable
Sensitivity Level	High (20 $\mu$ on Ni-Cr Test Panel)	To be used with Orion 119P	To be used with Orion 119P
Propellant	Hydrocarbon	Hydrocarbon	Hydrocarbon
Percentage of contaminants Chloride (NPC method) Sulfur (ASTM D-129)	Less than 0.0025% Less than 0.05%	Not applicable	Less than 0.0025% Less than 0.05%
Shelf Life	2 years	2 years	2 years
Packing size (Gross volume)	500 ml	500 ml	500 ml

NOTE: ORION 119 series is a class of proprietary products of M/s. The Oriental Chemical Works (P) Ltd, Kolkata-700027 and the technical data of the product may be subject to changes due to up gradation without notice.

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