

MANUFACTURER: NDT-Europa (NL)**DESCRIPTION / APPLICATION(S):**

EFX-01 is a fluorescent penetrant (equivalent level 1) based on surfactants, easy to wash with water.

EFX-01 contains no petroleum solvents.

The effluent processing cost is lower. The environment is protected. EFX-01 has excellent self-developing properties.

It can be used with UV-A or actinic blue light.

Companion products: developer D-100, D-90G, R60

DIRECTIONS FOR USE**1. Penetrant testing :****Preparation of the surface:**

Surface must be free of contaminants, **even inside flaws**. Use adequate methods to remove oxides, paints, oil, water, etc. Allow 2 minutes minimum for complete evaporation and wait until return at ambient temperature.

Application:

Apply a thin coat of EFX-01 to clean, dry surfaces by spraying, flowing, brushing or dipping.

Dwell-Time:

A 10 minute, or longer, dwell time is mandatory. Allow the penetrant to drain from the part. This not only conserves material, it improves performance.

Removal:

Use a quick, ambient temperature water wash to rinse EFX-01 from the part surface. Avoid washing entrapped penetrant from surface flaws; avoid high water pressures and temperatures; avoid prolonged washing and scrubbing. Wash under blue light (100µW/cm²) or UV-A light.

Drying:

Begin drying procedure immediately after the water wash; do not allow water to stand or puddle on the part's surface. Use pressurized air to disperse and remove as much excess surface water as possible before placing part in oven. Place part in a recirculating oven set no higher than 70°C just long enough to evaporate surface moisture. Use a heat gun to dry parts too large to fit in oven; avoid overheating.

Developing:

EFX-01 is self-developing. To amplify flaw marks, or in critical inspection situations, use a developer such as the Sherwin developers listed above.

Inspection:

in a UV-A booth, with ambient visible light level less than 20 lux, and with UV-A irradiance of at least 1000 $\mu\text{W}/\text{cm}^2$ (better : 1500 $\mu\text{W}/\text{cm}^2$) on the surface under inspection, according to ISO 3059. In a blue actinic light booth, with ambient visible light level less than 30 lux, and with actinic blue light irradiance of at least 1500 $\mu\text{W}/\text{cm}^2$ on the surface under inspection.

Leak detection :

Like any other penetrant, EFX-01 can be used to detect through-defects: apply the penetrant on one side, the developer on the other (not always necessary with a fluorescent penetrant) and find through-defects by looking at the side on which you have not applied the penetrant with an actinic blue light or a UV-A light.

TECHNICAL CHARACTERISTICS

Compatible with any metal and many synthetic materials.
Very low halogen and sulfur content

BIODEGRADABILITY:

According to the biodegradability test in aerobic and according to OECD 302 B criteria, EFX-01 has shown capacities at inherent biodegradability.

The result is positive (biodegradability >70%) but this does not mean that the effluents of EFX-01 can be released into natural environments, however an effluent discharge into water treatment plant is entirely possible: contact the entity managing the wastewater networks in your area.

Appearance green liquid
Fluorescence yellow green
Flash point 61-93°C

PRECAUTIONS FOR USE AND STORAGE

Transport / Handling: Refer to Material Safety Data Sheet (MSDS).

Storage : Keep away from moisture and daylight

Temperature range: 5°C à 50° C

1 Date : 06-07-2017 Written and checked by : F. Héron

Keep packaging closed after taking out some of the product

This technical data sheet replaces and cancels the previous one.

The above details have been compiled to the best of our knowledge. They have, however, an indicative value only and we therefore make no warranties and assume no liability in connection with any use of this information, particularly if a third party's rights are affected by the use of our products. The above information has been compiled based upon tests carried out by SOCOMORE. All data is subject to change as Socomore deems appropriate. The data given is not intended to substitute for any testing you must conduct in order to determine the suitability of the product for your particular purposes. Please check your local legislation applicable to the use of this product. Should you need any further information please contact us.