

### Approvals and conformities

ASME  
ISO 3452-2  
ALLISON ENGINES  
EADS  
SAFRAN  
BOEING  
LOCKHEED MARTIN  
GE  
QPD-AMS 2644

**MANUFACTURER: SHERWIN Inc. (USA) / NDT-Europa (NL)**

### DESCRIPTION / APPLICATION(S):

Type I, method A, Level 3 according AMS 2644 and ISO 3452-2 penetrant designed for detecting surface defects.

**Companion products:** DR-60, DR-62 removers  
N120 degreaser / N106A,  
D-100, D-106, R60, D-90G developer

### DIRECTIONS FOR USE

These describe the basic process, but they may need to be amended by the user to comply with applicable specifications and/or inspection criteria provided by the contracting agency.

#### Application:

Apply HM-430 only to clean, dry surfaces by spraying, flowing, brushing or dipping.

#### Dwell-Time:

A 10 minute dwell time is suggested, although in many cases five minutes will suffice. When particularly tight cracks are suspected, or the part is especially critical, the dwell time may be extended to 30 minutes, or longer.

**Do not soak the part.** To increase sensitivity, as well as conserve material, allow the penetrant to drain from the part surface back into the penetrant tank.

#### Removal:

Use a quick, ambient temperature water wash at tap pressure to rinse HM-430 from the part surface. To avoid washing entrapped penetrant from surface flaws, do not use high water pressures and temperatures, or prolonged washing and scrubbing.

**Drying:**

A recirculating oven set no higher than 80°C is suggested. Leave part in oven just long enough to evaporate surface moisture. Drying is improved by using pressurized air to disperse and remove as much excess water as possible before placing part in oven.

**Developing:**

HM-430 is self-developing. Nevertheless it is recommended to use a developer as listed above.

**Inspection:**

Inspect parts under appropriate UV-A radiation (mini 1000 µW/cm<sup>2</sup>, if possible higher or equal to 1500 µW/cm<sup>2</sup>) and dimmed visible light (max. 20 lux), it is also possible to use actinic blue light.

**TECHNICAL CHARACTERISTICS**

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- Very low halogen and sulfur content.
- Compatible with all metals, ceramics, and certain synthetic substances.

|                        |                                    |
|------------------------|------------------------------------|
| Appearance . . . . .   | green liquid                       |
| Fluorescence . . . . . | green-yellow                       |
| Flash point . . . . .  | > 93°C                             |
| Viscosity . . . . .    | 18 mm <sup>2</sup> /s ±15% at 40°C |

**PRECAUTIONS FOR USE AND STORAGE**

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

**Storage :** Keep away from moisture

Temperature range: 0°C à 50°C

Keep packaging closed after taking out some of the product.

1 Date : 04-07-2017 Written and checked by : F. Héron

**This technical data sheet replaces and cancels the previous one.**

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