

# Met-L-Chek®

Penetrant Professor Approved

## Product Data Sheet D-72A Dry Powder Developer

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10/2015



Met-L-Chek Company manufactures a complete line of developers used in the fluorescent (**Type 1**) and visible (**Type 2**) dye penetrant inspection process. All Met-L-Chek Company developers are qualified to **AMS-2644** and are sold under the **Met-L-Chek®** and **Pen-Chek®** trademarks. Met-L-Chek Company products are manufactured under license in The Netherlands by NDT Europa.

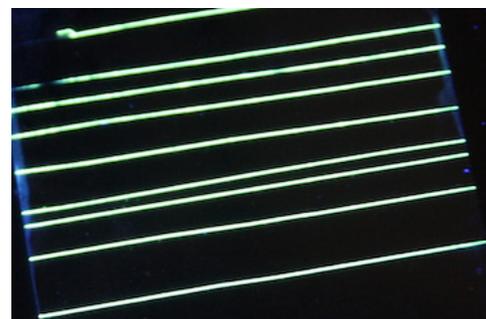
The use of a developer is required by most penetrant inspection specifications. The developer draws the penetrant from the flaw and creates a uniform surface on which to view the penetrant indication. **D-72A** is used with fluorescent penetrants as form “a” developer per **AMS-2644** and **ASTM E-1417**. It is applied after the surface penetrant has been removed and the inspection surface dried. **D-72A** dry powder developer consists of light fluffy absorbent, low toxicity powders. The particles are very light and will float in the air and are considered a nuisance dust. This form of developer is generally applied in special storm or dust chamber equipment, but may also be dusted on to parts with a feather duster, or electrostatic spray. If sprayed avoid build up of a heavy developer film. A very fine dusting is the recommended coverage. The developer film is easily removed from the part surface with water after inspection.

**D-72A** is approved by Boeing, GE, Pratt & Whitney, SNECMA, and **ISO- 3452**. It is low in Sulfur, Sodium, Chlorine, Fluorine and other Halogens, making it safe for use on Titanium and high Nickel alloys found in aerospace, medical and nuclear components.

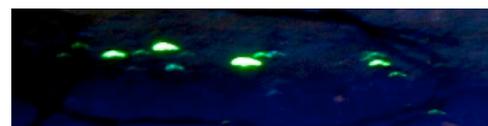
**D-72A** has been demonstrated to work with red (**Type 2**) dye penetrants on rough castings for gross defect detection when applied by electrostatic spray, but this method is not addressed by current specifications.



D-72A powder



Fluorescent penetrant indications with D-72A





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## Typical Physical Properties

Form: white fluffy powder  
 Density: 160 g/L  
 Flash Point: none  
 Fluorescence: none  
 Coating: light dusty  
 Removability with water: complete  
 Corrosion of aluminum: none  
 Corrosion of carbon steel: none  
 Corrosion of magnesium: none  
 Corrosion of stainless steel: none  
 Corrosion of titanium: none  
 Chloride content: < 100 ppm (0.01%)  
 Fluoride content: < 50 ppm (0.005%)  
 Sodium content: < 100 ppm (0.01%)  
 Sulfur content: < 200 ppm (0.02%)  
 Mercury: none  
 VOC's: 0 g/L  
 Ozone layer depleting substances: none  
 PCB's: none

The warranty shelf life of the product is 5 years from date of batch approval.

## Specifications

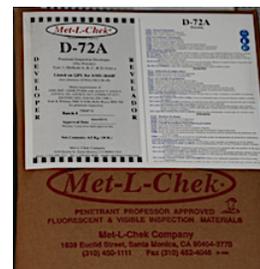
<b>AMS-2644</b>	<b>AMS-2647</b>
<b>ASME B &amp; PV code sec V</b>	
<b>ASTM E-165</b>	<b>ASTM E-1417</b>
<b>ISO-3452</b>	<b>PMC-4356</b>
<b>R-R CSS-232</b>	<b>R-R Omat #606C</b>
<b>Snecma DMC0010 rev J, sensibilité S2, S3, S4</b>	

## Product Availability

10 lb.(4.5K) box  
 25 lb.(11.3K) box  
 1 pint can (0.4L) with dauber 6.5g(2.2oz)

## NSN #'s

10 lb 6850-01-264-8682



## GHS Information

### Warning

#### GHS: Hazard Statements:

**H303:** May be harmful if swallowed  
**H333:** May be harmful if inhaled

#### GHS Precautionary Statements:

**P102:** Keep out of reach of children.  
**P233:** Keep container tightly closed.  
**P261:** Avoid breathing dust, fumes/gas/mist/vapors/spray.  
**P280:** Wear protective glove/clothing/eye protection/face protection.  
**P284:** In case of inadequate ventilation wear respiratory protection.



### GHS Response Statements:

**IF INHALED:** Remove person to fresh air and keep comfortable for breathing, get medical advice/attention if you feel unwell.  
**IF ON SKIN:** Wash with plenty of water. If skin irritation occurs, get medical advice/attention.  
**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easily to do. Continue rinsing, get medical attention.  
**IF SWALLOWED:** Rinse mouth, Do Not induce vomiting, get medical attention if feeling unwell.  
**IF ON CLOTHING:** Take off contaminated clothing and wash before reuse.

### Transport:

DOT - not regulated  
 IATA- not regulated  
 IMDG- not regulated

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