



Penetrant Professor Approved

Product Data Sheet

D-76B Water Soluble Developer

1
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-76B** is used with fluorescent (**Type 1**), **Method B & D** penetrants as form “b” developer per **AMS-2644** and **ASTM E-1417**. This form of developer powder is dissolved in water and applied to the inspection surface after the surface penetrant has been removed and before the part is dried. This form of developer is generally applied by immersion dip, flow on, or gentle air less spray, prior to the drying process. A uniform film will form during the drying. Most specifications do not allow the use of this form of developer with Method A (water washable) penetrants.

BATH PREPARATION: Use a tank that has little or no plumbing in it. The nooks and crannies in piping are a favorite place for bacteria to breed and to hide. It is difficult to get into these spots to clean them, and once they become infected they will continue to give trouble. Clean and sterilize the tank before you use it. Cleaning can be done with detergent and a brush, and many users follow this with steam cleaning. Once the tank is clean, sterilize it with swimming pool bleach, by making up the solution, filling tank, and letting it sit overnight. Drain the tank and rinse it with fresh water. This must be done to be sure that the bleach is gone. The bleach contains chlorine, which is harmful to many metals.

Weigh out the amount of developer powder that is required. **D-76B** is qualified at a concentration of **2 lb/gl(240g/L)**. Lower concentrations will form thinner films and result in shorter bath life. If at all possible use distilled or deionized water to minimize mineral and bacteriological problems. If warm water can be used it will dissolve the developer powder faster. Agitation of the bath during make up will also make the powder dissolve faster. Add the water to the tank, then add the powder: The solution concentration can be checked by using a hydrometer that has a range of 1.000 to 1.200. Evaporation causes the concentration to rise and this can be corrected by adding water, stirring and rechecking the hydrometer reading. This should be done daily. A rough control guide is 1/4 lb/gl(30g/L) of developer will cause roughly a 0.008 change in the specific gravity.

Check the solution daily for color and clearness. The solution should be clear and transparent. There should be no suspended material, strings of algae or other obvious growths or cloudiness. This daily check is especially important if the inspection process involves the processing of baskets of parts that are made of dissimilar metals. These metals can set up an electrical current that can produce cloudiness of the solution. This color change is a sign that the developer constituents are becoming contaminated and indication detection interference may be encountered. Biologically bad developer solution will absorb fluorescence causing false indications or even masking relevant indications. The growths will also begin to evolve noxious odors which makes continued use unpleasant. Biologically contaminated solutions will need to be disposed of and the tank & plumbing sterilized before making a fresh bath.

After parts have been dipped into the developer, put them immediately into the dryer. Allowing part to remain in the wet developer, or to sit while wet for a period of time before drying can cause the penetrant to bleed from the defects, resulting in dim blurry indications. Immediate drying produces the best results. The dryer temperature should be set at the maximum allowable temperature of 160°F(71°C). If the surface of the part looks bluish under ultra violet light (UV-A), it is an indication that the parts have been in the developer bath too long and the bath is becoming contaminated with penetrant.



D-76B developer powder



D-76B developer solution



Fluorescent penetrant indication on D-76B



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Product Data Sheet
D-76B Water Soluble Developer

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10/2015

Typical Physical Properties

- Form: white grainy powder
Density: 717.1 g/L
Flash Point: none
Fluorescence: none
Coating: thin white film
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: < 1000 ppm (0.1%)
Sulfur content: < 1000 ppm (0.1%)
Chromate: none
Asbestos: none
Mercury: none
VOC's: 0 g/L
Ozone layer depleting substances: none
PCB's: none

The warranty shelf life of the product is 2 years from date of batch approval.

Concentration Control @ 15.5°C (60°F)

- 2.00 lb/gal(240g/L) - 1.068
1.75 lb/gal(210g/L) - 1.060
1.50 lb/gal(180g/L) - 1.052
1.25 lb/gal(150g/L) - 1.044
1.00 lb/gal(120g/L) - 1.036

0.25 lb/gal(30g/L) addition will shift specific gravity by 0.008.

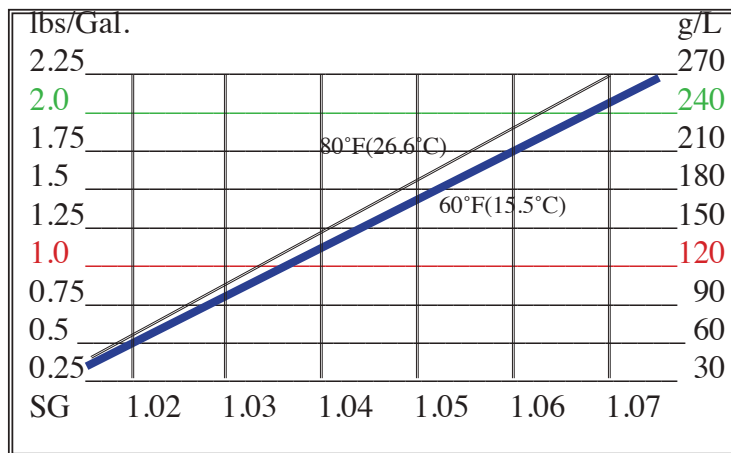


Chart is not precise and is provided as a guide only. Specific Gravity readings are effected by temperature. For uniform comparisons make all readings at the same temperature.

Specifications

- AMS-2644
ASME B & PV code sec V
ASTM E-1417
AMS-2647
ASTM E-165
ISO-3452

Product Availability

- 10 lb.(4.5K) box
20 lb.(9K) box
25 lb.(11.3K) box
50 lb.(22.7K) box
NSN #'s
10 lb. 6850-01-121-0952
20 lb. 6850-00-782-2720
50 lb. 6850-01-121-0953

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

Met-L-Chek Company, 1639 Euclid Street, Santa Monica, California, 90404, U.S.A.

Phone: 310-450-1111, Fax: 310-452-4046, Email: info@met-l-chek.com, Web: www.met-l-chek.com



Penetrant Professor Approved

Product Data Sheet

D-78B Water Suspensible Developer

1
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-78B** is used with fluorescent (**Type 1**), and visible (**Type 2**) penetrants as a form “c” developer per **AMS-2644** and **ASTM E-1417**. This form of developer powder is dispersed in water and applied to the inspection surface after the surface penetrant has been removed and before the part is dried. This form of developer is generally applied by immersion dip, flow on, or gentle air less spray, prior to the drying process. A uniform film will form during the drying. The developer particles will settle out of solution upon standing and as such will require continuous agitation during use.

BATH PREPARATION: Use a tank that has little or no plumbing in it. The nooks and crannies in piping are a favorite place for bacteria to breed and to hide. It is difficult to get into these spots to clean them, and once they become infected they will continue to give trouble. Clean and sterilize the tank before you use it. Cleaning can be done with detergent and a brush, and many users follow this with steam cleaning. Once the tank is clean, sterilize it with swimming pool bleach, by making up the solution, filling tank, and letting it sit overnight. Drain the tank and rinse it with fresh water. This must be done to be sure that the bleach is gone. The bleach contains chlorine, which is harmful to many metals.

Weigh out the amount of developer powder that is required. **D-78B** is qualified at a concentration of **1/2 lb/gal (60 g/L)** for fluorescent penetrants and **2 lb/gal(240 g/L)** for visible penetrants. If at all possible use distilled or deionized water to minimize mineral and bacteriological problems. Agitation of the bath during make up and during use will ensure uniform dispersion of the developer powder, which will settle upon standing. Add the water to the tank, then add the powder: The solution concentration can be checked by using a hydrometer that has a range of 1.000 to 1.200. Evaporation causes the concentration to rise and this can be corrected by adding water, stirring and rechecking the hydrometer reading.

Check the solution daily for color and clearness. The solution should be milky but free of discolored objects, strings of algae or other obvious growths. This daily check is especially important if the inspection process involves the processing of baskets of parts that are made of dissimilar metals. These metals can set up an electrical current that can produce discoloration of the solution. This color change is a sign that the developer constituents are becoming contaminated and indication detection interference may be encountered. Biologically bad developer solution will absorb fluorescence causing false indications or even masking relevant indications. The growths will also begin to evolve noxious odors which makes continued use unpleasant. Biologically contaminated solutions will need to be disposed of and the tank & plumbing sterilized before making a fresh bath.

After parts have been dipped into the developer, put them immediately into the dryer. Allowing part to remain in the wet developer, or to sit while wet for a period of time before drying can cause the penetrant to bleed from the defects, resulting in dim blurry indications. Immediate drying produces the best results. The dryer temperature should be set at the maximum allowable temperature of 160°F(71°C). If the surface of the part looks bluish under ultra violet light (UV-A) , or pinkish it is an indication that the parts have been in the developer bath too long and the bath is becoming contaminated with penetrant.

D-78B developer solution



Fluorescent penetrant indication on D-78B



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D-78B Water Suspensible Developer

Typical Physical Properties

- Form: white coarse powder
- Density: 313 g/L
- Flash Point: none
- Fluorescence: none
- Coating: white film
- 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: < 10000 ppm (1%)
- Sulfur content: < 10000 ppm (1%)
- Chromate: none
- Asbestos: none
- Mercury: none
- VOC's: 0 g/L
- Ozone layer depleting substances: none
- PCB's: none

The warranty shelf life of the product is 2 years from date of batch approval.

Specifications

- AMS-2644
- ASME B & PV code sec V
- ASTM E-1417
- AMS-2647
- ASTM E-165
- ISO-3452

Product Availability

- 10 lb.(4.5K) box
- 25 lb.(11.3K) box
- 50 lb.(22.7K) box

NSN #'s

10 lb. 6850-01-264-8684

Concentration Control @ 15.5°C(60°F)

2.00 lb/gl(240g/L) -1.130

1.75 lb/gl(210g/L) - 1.113

1.50 lb/gl(180g/L) - 1.096

1.25 lb/gl(150g/L) - 1.080

1.00 lb/gl(120g/L) - 1.065

0.75 lb/gl(90g/L) - 1.047

0.50 lb/gl(60g/L) - 1.032

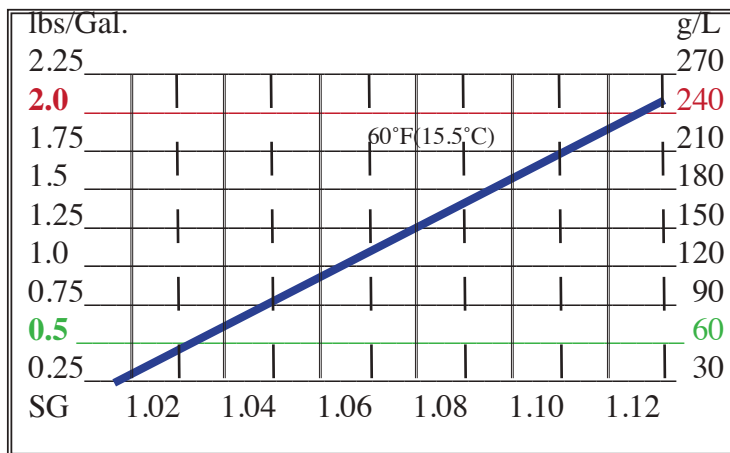


Chart is not precise and is provided as a guide only. Specific Gravity readings are effected by temperature. For uniform comparisons make all readings at the same temperature.

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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Product Data Sheet

1
10/2015

D-702 High Temperature Developer



Met-L-Chek Company manufactures a complete line of developers used in the fluorescent (**Type 1**) and visible (**Type 2**) dye penetrant inspection process. Met-L-Chek Company high temperature developer, **D-702**, is qualified to **Mil-I-25135** as a special application developer and is 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.

D-702 is a special application high temperature inspection developer, form “**F**”, used with high temperature visible penetrant **VP-302** to enhance detection of surface cracks and porosity on hot surfaces. The use range is **51.6 °C - 176.6 °C (125°F -350°F)**. **D-702** is applied after the surface penetrant has been removed. **D-702** is applied by spraying, either from a portable compressed gas spray pack or by conventional spray gun. The developer consists of absorbent powder suspended in a volatile solvent blend. **D-702** dries quickly and produces a thin white film, which is easily removed with water after inspection. This type of developer contains flammable solvents and should not be used in confined spaces or near open flames or sparks. The use on hot surfaces does not pose a significant fire hazard in the open air.

D-702 is listed on the approved products list for **Mil-I-25135C** It is low in Sulfur, Chlorine, Fluorine and other Halogens, making it safe for use on Titanium and high Nickel alloys found in nuclear components.

D-702 finds wide use in field weld and weld repair inspection. It is used in the inspection of refinery processing equipment that is at elevated temperatures, speeding up the inspection process time by eliminating the total cool down required for standard penetrant.

Operator must take precautions when working on hot surface to prevent burns. Protective gloves are recommended.

Guide to METHOD “C” wipe off processing

1. Part must be clean, dry and at a temperature of 52°-177°C (125°- 350°F) before penetrant is applied. Test surface temperature by applying a small drop of penetrant on the part surface. If the color turns brown to black in a minute the surface is too hot to inspect. Allow to cool until red color persists.



High temperature penetrant **VP-302** crack indication on **D-702** developer film.

2. Apply **VP-302** penetrant using spray or wipe on.

3. Wait a minimum of 1-5 minutes for penetrant to thin and enter flaws.

4. Using **R-502** high temperature remover on wiping media, wipe off surface penetrant.

5. Spray on thin even film of **D-702** high temperature developer.

6. Wait a minimum of 1-5 minutes before inspection. On higher temperature surfaces color may begin to fade with prolonged time. Use illumination of >1100 lux/m² (>100 foot candles) to inspect.



Portable spray packs for applying **D-702** high temperature developer.





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D-702 High Temperature Developer

Typical Physical Properties

Form: hazy liquid
 Density: 950g/L
 Flash Point: > 11.6°C (>54°F)
 Fluorescence: none
 Dry Coating: thin white film
 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%)
 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 3 years from date of batch approval.

Specifications

ASME B & PV code sec V ASTM E-165
 ASTM E-1417 ISO-3452
 Mil-I-25135C, Interim AM-4
 NAVSEA-250-1500-1, Rev17, ACN-5

Product Availability

1 pint (0.473L) metal can
 1 gallon (3.7L) metal can
 5 gallon (18.9L) metal pail



GHS Information



Danger

GHS: Hazard Statements:
H225: Highly flammable liquid and vapor.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness

GHS Precautionary Statements:

P102: Keep out of reach of children.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233: Keep container tightly closed.
P261: Avoid breathing 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 -UN 1219, Isopropanol, class 3, , packing group II, .



Penetrant Professor Approved

Product Data Sheet
**D-70 Nonaqueous
Developer**

1
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-70** is used with fluorescent penetrants as form “**d**” and with visible penetrants as form “**e**”. It is applied after the surface penetrant has been removed and the inspection surface dried. **D-70** nonaqueous developer consists of absorbent powder suspended in a volatile solvent. The developer particles will settle out upon standing, requiring agitation prior to application. This type of developer is most commonly used in aerosol cans, but may also be bulk sprayed using a paint sprayer. The solvent action of this type of developer helps bring the penetrant to the surface enhancing the detectability of the finest flaws. This type of developer uses flammable solvents and should not be used in confined spaces or near open flames or sparks.

D-70 is approved by Boeing, Edf, GE, Pratt & Whitney, **ISO- 3452** and is the qualification standard for **AMS-2644**. 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-70 finds wide use in weld inspection in ship building and weld repairs. It is used in heat exchanger inspection in what is called the through leak method where penetrant is applied to one side and the **D-70** to the other. After a prescribed penetration time the developer coating is inspected for penetrant indications which highlight a through leak.

D-70 has been used by automotive manufacturers to assist in locating oil and gas leaks in engine components and hydraulic lines. The area of interest is cleaned and the developer applied. The engine is run and the oil leak will appear as a dark spot on the white coating. Reminiscent of the old oil and whiting inspection used by railroads before the advent of modern penetrant inspection materials.

D-70 has been used in the 3-D laser scanning of automobiles and exotic components where it is used to reduce interference glare from shinier surfaces. It has been used to assist in the installation of aircraft doors as a marker for fit adjustments. All these applications require a low toxicity material that is readily removed with a water spray leaving a residue free surface.

Visible penetrant crack indication on D-70



Typical aerosol application of D-70 during a weld inspection.

Fluorescent penetrant crack indication on D-70





Penetrant Professor Approved

Product Data Sheet
D-70 Nonaqueous Developer

2
10/2015

Typical Physical Properties

Form: milky liquid
Density: 851 g/L
Flash Point: 11.6°C (54°F)
Fluorescence: none
Dry Coating: smooth white
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: 200 ppm (0.02%)
Sulfur content: 100 ppm (0.01%)
Mercury: none
VOC's: 750 g/L
Ozone layer depleting substances: none
PCB's: none

Specifications

AMS-2644 AMS-2647
ASME B & PV code sec V
ASTM E-165 ASTM E-1417
ISO-3452 PMC-4357
RR CSS-232 RCC-M
Snecma DMC0010 rev J, sensibilité S2, S3, S4

NSN #'s

1 gallon can 6850-01-265-2742
1 gallon can for Type 2 6850-01-265-2743
5 gallon pail 6850-00-782-2728
5 gallon pail for Type 1 6850-01-264-8679
5 gallon pail for Type 2 6850-01-264-8680

Product Availability

12 x 16oz (400ml) vol. aerosol(net wt 300g or 10.5oz)
1 gallon (3.7L) metal can
5 gallon (18.9L) metal pail



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

GHS Information



Danger

GHS: Hazard Statements:
H225: Highly flammable liquid and vapor.
*H229: Pressurized container: may burst if heated.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness

GHS Precautionary Statements:

P102: Keep out of reach of children.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233: Keep container tightly closed.
P261: Avoid breathing fumes/gas/mist/vapors/spray.
P280: Wear protective glove/clothing/eye protection/face protection.
P284: In case of inadequate ventilation wear respiratory protection
*P410: Protect from sunlight.
*P412: Do not expose to temperatures exceeding 50°C/122°F
* Specific to aerosol cans



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:

Bulk - UN 1219, Isopropanol, class 3, packing group II, .
Aerosol:DOT- Limited Quantity.
Aerosol:IATA- UN 1950 ,Aerosol, flammable, class 2.1,

Met-L-Chek Company, 1639 Euclid Street, Santa Monica, California, 90404, U.S.A.

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Penetrant Professor Approved

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

1
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.

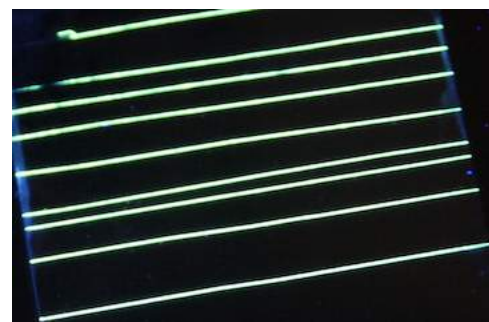
The use of a developer is required by most penetrant inspection specifications. The developer draws the penetrant from the flaw and creates a uniform surface on which to view the penetrant indication. **D-72A** is used with fluorescent penetrants as form “a” developer per **AMS-2644** and **ASTM E-1417**. 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.

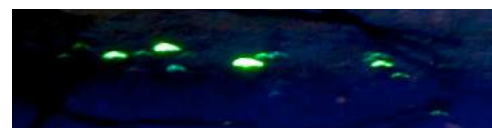
D-72A has been demonstrated to work with red (**Type 2**) dye penetrants on rough castings for gross defect detection when applied by electrostatic spray, but this method is not addressed by current specifications.



D-72A powder



Fluorescent penetrant indications with D-72A





Penetrant Professor Approved

Product Data Sheet
D-72A Dry Powder Developer

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10/2015

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

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

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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