

catalogue

BYDA

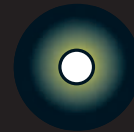
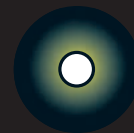


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BVDA



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Latent fingerprints

This all-purpose investigation kit has been designed for fast but complete general crime scene investigation. It contains the most up-to-date materials for developing latent fingerprints, as well as the tools and materials for the casting of toolmarks and similar traces. Various items for the protection and storage of crime scene evidence materials are also included.

Contents: see page 1.02



"UNIVERSAL 101" INVESTIGATION KIT

CAT. NO. B - 1000

Model SO-101

In Samsonite case

Dimensions:

48 x 36 x 13 cm

Weight: 9.5 kg



Contents of investigation kit SO-101

Cat. No.	Description
A - 25000	1 Instant fingerprint pad (Porelon)
A - 70000	1 BVDA fingerprint ink remover
B - 11000	10 Gellifters, 13 x 18 cm, black
B - 14000	10 Gellifters, 13 x 18 cm, white
B - 17000	10 Gellifters, 13 x 18 cm, transparent
B - 23100	1 Instant Lifter, black, 5x10 cm, 20 pcs.
B - 23600	1 Instant Lifter, white, 5x10 cm, 20 pcs.
B - 24100	1 Instant Lifter, transparent, 5x10 cm, 20 pcs.
B - 32000 *	1 Fingerprint powder, Silver Special, 100 ml
B - 34000 *	1 Fingerprint powder, Black Special, 100 ml
B - 38000 *	1 Fingerprint powder, Instant Gold, 100 ml
B - 44000 *	1 Fingerprint powder, Magnetic Silver, 200 g
B - 45000 *	1 Fingerprint powder, Magnetic Jet Black, 200 g
B - 48000	1 Aerosol latent Silver Fingerprint Powder
B - 49000	1 Aerosol latent Black Fingerprint Powder
B - 50000	1 Powder brush, no. 6
B - 51000	1 Powder brush, no. 8
B - 53000	1 Powder brush, flat, 4 cm wide
B - 60000	1 Magnetic brush
B - 90000	1 Ridge counter
B - 91000	1 Pair of scissors (stainless steel)
B - 93000	1 Metal mirror
B - 95000	1 Dust-free box for powders and brushes
C - 1100	1 SILMARK, gray impression compound in tube, 150 g, medium viscosity, with paste hardener
C - 4000	1 Drop-bottle with SILMARK Fluid
C - 6000	1 Aerosol silicone SLM (release agent)
C - 11000	1 Plastic mixing dish for SILMARK
C - 12000	1 Svedia spatula
C - 15100	1 Plasticine (dam clay)
C - 20000	1 Magnet with handle
C - 23000	1 Forceps, 10.5 cm, flat
C - 24000	1 Forceps, 10 cm, pointed
C - 25000	1 Forceps, 25 cm, flat
C - 28000	1 Nail file with point
C - 29000	1 Scalpel handle
C - 30000	1 Package of scalpel blades, 3 pcs. (sterilized)
C - 60000	1 Pair of rubber gloves, thin, sterile
C - 61000	1 Pair of rubber gloves, thick
C - 69000	5 Polyethylene evidence bags, 18.6 x 48 cm
C - 70000	5 Polyethylene evidence bags, 14.4 x 45 cm
C - 74000	5 Sheets with 9 self-adhesive labels each
C - 75000	5 Plastic test-tubes with plastic stoppers
C - 82000	1 Polystyrene box with lid (11.5 x 7.5 x 3 cm)
C - 84000	6 Polystyrene boxes with lids (5.7 x 3.6 x 1.7 cm)
D - 91100	2 Aluminum holder for fluorescent crayons
E - 11100	1 Unifix-6, fixative aerosol
H - 20000	1 Set of self-adhesive labels with numbers 0-9 (one sheet for each number, 6 per sheet)
H - 21000	1 Set of self-adhesive arrows (10 sheets, 10 per sheet)
H - 36000	1 Felt pen, black
I - 30000	1 Streamlight "Junior"
K - 20000	1 Magnifier, glass lens (75 mm diameter), with handle
N - 1500	1 Pocketknife for general use
N - 3500	1 Pincers, pointed
N - 9300	1 Screwdriver
N - 9500	1 Phillips screwdriver
N - 11000	1 Electric tester, screwdriver type
N - 12000	1 Precision caliper
N - 14500	1 Glass cutter
N - 32000	1 Tape measure, 2 meters

* One jar of each powder is standard, but the assortment can be varied at your request.

These items can also be supplied separately.

Investigation kits



"UNIVERSAL 102"
INVESTIGATION KIT

CAT. NO. B - 1100

Model SO-102

In Samsonite case

Dimensions:

48 x 36 x 13 cm

Weight: 9.5 kg



This investigation kit is the same as SO-101, but adapted for use of the blower brush (B - 52000).

Instead of the two cans with aerosol fingerprint powder, there are two blower brushes mounted in dust-free boxes.

Contents: see page 1.04

Contents of investigation kit SO-102

Cat. No.	Description
A - 25000	1 Instant fingerprint pad (Porelon)
A - 70000	1 BVDA fingerprint ink remover
B - 11000	10 Gellifters, 13 x 18 cm, black
B - 14000	10 Gellifters, 13 x 18 cm, white
B - 17000	10 Gellifters, 13 x 18 cm, transparent
B - 23100	1 Instant Lifter, black, 5x10 cm, 20 pcs.
B - 23600	1 Instant Lifter, white, 5x10 cm, 20 pcs.
B - 24100	1 Instant Lifter, transparent, 5x10 cm, 20 pcs.
B - 32000 *	1 Fingerprint powder, Silver Special, 100 ml
B - 34000 *	1 Fingerprint powder, Black Special, 100 ml
B - 35500 *	1 Fingerprint powder, Special Blower Black, 100 ml
B - 36500 *	1 Fingerprint powder, Special Blower Silver, 100 ml
B - 45000 *	1 Fingerprint powder, Magnetic Jet Black, 200 g
B - 50000	1 Powder brush, no. 6
B - 51000	1 Powder brush, no. 8
B - 52000	2 Blower brush with marabou feather duster
B - 52500	2 Dust-free box for B - 52000
B - 53000	1 Powder brush, flat, 4 cm wide
B - 60000	1 Magnetic brush
B - 90000	1 Ridge counter
B - 91000	1 Pair of scissors (stainless steel)
B - 93000	1 Metal mirror
B - 95000	1 Dust-free box for powders and brushes
C - 1100	1 SILMARK, gray impression compound in tube, 150 g, medium viscosity, with paste hardener
C - 4000	1 Drop-bottle with SILMARK Fluid
C - 6000	1 Aerosol silicone SLM (release agent)
C - 11000	1 Plastic mixing dish for SILMARK
C - 12000	1 Svedia spatula
C - 15100	1 Plasticine (dam clay)
C - 20000	1 Magnet with handle
C - 23000	1 Forceps, 10.5 cm, flat
C - 24000	1 Forceps, 10 cm, pointed
C - 25000	1 Forceps, 25 cm, flat
C - 28000	1 Nail file with point
C - 29000	1 Scalpel handle
C - 30000	1 Package of scalpel blades, 3 pcs. (sterilized)
C - 60000	1 Pair of rubber gloves, thin, sterile
C - 61000	1 Pair of rubber gloves, thick
C - 69000	5 Polyethylene evidence bags, 18.6 x 48 cm
C - 70000	5 Polyethylene evidence bags, 14.4 x 45 cm
C - 74000	5 Sheets with 9 self-adhesive labels each
C - 75000	5 Plastic test-tubes with plastic stoppers
C - 82000	1 Polystyrene box with lid (11.5 x 7.5 x 3 cm)
C - 84000	6 Polystyrene boxes with lids (5.7 x 3.6 x 1.7 cm)
D - 91100	2 Aluminum holder for fluorescent crayons
E - 11100	1 Unifix-6, fixative aerosol
H - 20000	1 Set of self-adhesive labels with numbers 0-9 (one sheet for each number, 6 per sheet)
H - 21000	1 Set of self-adhesive arrows (10 sheets, 10 per sheet)
H - 36000	1 Felt pen, black
I - 30000	1 Streamlight "Junior"
K - 20000	1 Magnifier, glass lens (75 mm diameter), with handle
N - 1500	1 Pocketknife for general use
N - 3500	1 Pincers, pointed
N - 9300	1 Screwdriver
N - 9500	1 Phillips screwdriver
N - 11000	1 Electric tester, screwdriver type
N - 12000	1 Precision caliper
N - 14500	1 Glass cutter
N - 32000	1 Tape measure, 2 meters

* One jar of each powder is standard, but the assortment can be varied at your request.

These items can also be supplied separately.

Investigation kits

Cat. No.	Description
A - 25000	1 Instant fingerprint pad
B - 11000	10 Gellifters, 13 x 18 cm, black
B - 14000	10 Gellifters, 13 x 18 cm, white
B - 17000	10 Gellifters, 13 x 18 cm, transparent
B - 23100	1 Instant Lifter, black, 5x10 cm, 20 pcs.
B - 23600	1 Instant Lifter, white, 5x10 cm, 20 pcs.
B - 24100	1 Instant Lifter, transparent, 5x10 cm, 20 pcs.
B - 32000	1 Fingerprint powder, Silver Special, 100 ml
B - 34000	1 Fingerprint powder, Black Special, 100 ml
B - 38000	1 Fingerprint powder, Instant Gold, 100 ml
B - 44000	1 Fingerprint powder, Magnetic Silver, 200 g
B - 45000	1 Fingerprint powder, Magnetic Jet Black, 200 g
B - 50000	1 Powder brush, nr. 6
B - 51000	1 Powder brush, nr. 8
B - 60000	1 Magnetic brush
B - 91000	1 Pair of scissors (15 cm, stainless steel)
B - 95000	1 Dust-free box for powders and brushes
C - 24000	1 Forceps, 10 cm, pointed
C - 28000	1 Nail file with point
E - 48000	1 Photo-gauge
H - 36000	1 Felt pen
K - 40000	1 Pocket magnifier 3x
N - 14500	1 Glass cutter
N - 32000	1 Tape measure, 2 meters

These items can also be supplied separately.

**COMPACT LATENT
FINGERPRINT
KIT**

CAT. NO. B - 4000

*Dimensions:
44 x 32 x 9 cm
Weight: 5 kg*



This is a compact kit, composed for fingerprint investigation.

The most commonly used BVDA fingerprint powders, fingerprint lifters, an instant fingerprint pad, and several other items are included.

Investigation kits

Wide-mouth jar for B-32000 (60 ml)



BURGLARY INVESTIGATION KIT

CAT. NO. B - 6000

In Samsonite case

Dimensions:

48 x 36 x 13 cm

Weight: 7.8 kg

Cat. No.	Description
A - 25000	1 Instant fingerprint pad
B - 11000	10 Gellifters, for fingerprints, 13 x 18 cm, black
B - 12000	2 Gellifters, for footprints, 13 x 36 cm, black
B - 17000	10 Gellifters, for fingerprints, 13 x 18 cm, transparent
B - 22100	10 Backing sheet, black, 13 x 18 cm
B - 22300	10 Backing sheet, white, 13 x 18 cm
B - 32000	1 Fingerprint powder, Silver Special, 100 ml
B - 35500	1 Fingerprint powder, Special Blower Black, 100 ml
B - 45000	1 Fingerprint powder, Magnetic Jet Black, 200 g
B - 50000	1 Powder brush, nr. 6
B - 51000	1 Powder brush, nr. 8
B - 52000	1 Blower brush with marabou feather duster
B - 52500	1 Dust-free box for B - 52000
B - 60000	1 Magnetic brush
B - 91000	1 Pair of scissors (15 cm, stainless steel)
B - 92000	1 Felt pen, permanent, for making notes on lifters
B - 95000	1 Dust-free box for powders and brushes
C - 24000	1 Forceps, 10 cm, pointed
C - 25000	1 Forceps, 25 cm, rounded
C - 29000	1 Scalpel handle
C - 30000	1 Package containing 3 scalpel blades (sterilized)
C - 69000	5 Polyethylene evidence bags, 18.6 x 48 cm
C - 71000	5 Polyethylene evidence bags, 16.5 x 30 cm
C - 74000	10 Sheets with 9 self-adhesive labels each (47 x 36 mm)
C - 86000	10 Polyethylene evidence bags (ziplock type), 10 x 15 cm
C - 89000	10 Polyethylene evidence bags (ziplock type), 6 x 8 cm
K - 40000	1 Pocket magnifier, magnification 3x
N - 3500	1 Pair of pliers, pointed, 160 mm
N - 9300	1 Screwdriver, flat, 150 x 7 mm
N - 9500	1 Phillips screwdriver, size 1
N - 12000	1 Precision caliper, 160 mm
N - 32000	1 Tape measure, 2 meters
Y - 56000	1 Wide-mouth jar for B - 32000

These items can also be supplied separately.



This kit was developed for the police officer who does a limited investigation at a crime scene after a burglary. In contrast to the universal investigation kits, for example, this kit does not contain tools and materials for the casting of toolmarks.

Finger- and footprint gelatin lifters

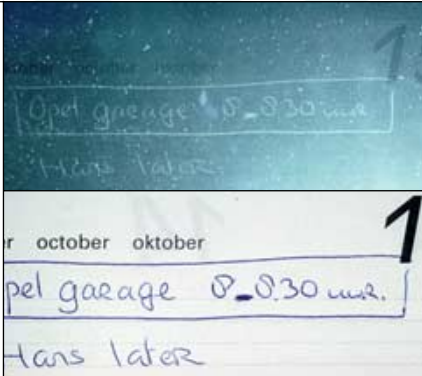


Lifting of prints dusted with Silver Special fingerprint powder.



The finger- and footprint lifters are packaged in sealed, laminated pouches. This packing material protects the gelatin adhesive against moisture, thus keeping the tack optimal during storage.

Cat. No.	Description
B - 11000	Fingerprint lifter, black, 13 x 18 cm, 10 sheets
B - 14000	Fingerprint lifter, white, 13 x 18 cm, 10 sheets
B - 17000	Fingerprint lifter, transparent, 13 x 18 cm, 10 sheets
B - 17100	Fingerprint lifter, transparent, 9 x 13 cm, 10 sheets
B - 12000	Footprint lifter, black, 13 x 36 cm, 2 sheets
B - 15000	Footprint lifter, white, 13 x 36 cm, 2 sheets
B - 18000	Footprint lifter, transparent, 13 x 36 cm, 2 sheets



B - 12500	Footprint lifter, black, 18 x 36 cm, 2 sheets
B - 15500	Footprint lifter, white, 18 x 36 cm, 2 sheets
B - 18200	Footprint lifter, transparent, 18 x 36 cm, 2 sheets

For a complete list of the large-size gelatin lifters: see page 3.03

Indented writing can be lifted (once) with black lifters and photographed with light that is held at a wide angle to the surface of the lifter. In this case the light source (white light of a Polilight) was brought as close to the axis lifter-camera as was possible without reflecting in the surface of the lifter. Photograph B shows the original text. Photograph A shows the indented writing on the page underneath.



Part of a shoeprint, lifted from a carton.

Finger- and footprint gelatin lifters



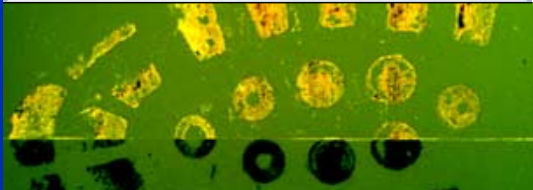
Greasy prints can be lifted even without using powder due to the extreme over-exposure that can be used in photography of traces on black gelatin lifters. Above, an example of a greasy print, lifted from glass.

Three fingerprints have become visible, after fuming this battery with cyanoacrylate.



White gelatin lifters can be used for the lifting of finger- and footprints in blood that are stained with, for example, Hungarian Red, Amido Black, Crowle's stain or Coomassie Blue.

Hungarian Red-stained prints, lifted with a white gelatin lifter, fluoresce under green light (see also page 1.23).



After staining the cyanoacrylate with Basic Yellow 40, more details can be seen using light of about 450 nm and a yellow filter placed in front of the camera lens.



By rolling the battery over the surface of the black gelatin lifter, the cyanoacrylate-developed print is lifted. Usually several rotations are possible before the traces become too weak to see. Incidentally, the picture of this lift was reversed to facilitate the comparison of the lifted print with the print on the battery.

Instant lifters



The Instant Lifter is not a substitute for the BVDA Gellifters, but is a better alternative to the synthetic tape products generally used to lift dusted fingerprints.

The BVDA Instant Lifter consists of a transparent adhesive film (with a protective cover) adhered to a black, white, or transparent backing.

The adhesive film has a special low tack adhesive. The protective cover is die-cut, for easy removal. To the adhesive film, a backing sheet is attached. This black, white, or transparent backing can be easily be applied to the adhesive film, after lifting of the powdered fingerprint(s). To avoid the inclusion of air bubbles, a roller (see page 2.06) can be used.

On the front of the Instant Lifter, the text “viewing side” is visible. Therefore, with the transparent backing, there is no doubt which side is the front of the lifter.

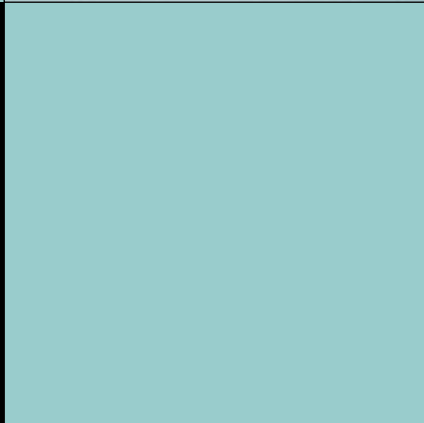
At the bottom of the backing sheet, there is a paper strip on which notes like date and case number can be written.

Cat. No.	Description			
B - 23000	Instant Lifter, black	5 x 5 cm	box of 20	
B - 23100	Instant Lifter, black	5 x 10 cm	box of 20	
B - 23200	Instant Lifter, black	10 x 10 cm	box of 20	
B - 23400	Instant Lifter, black	13 x 18 cm	box of 20	
B - 23500	Instant Lifter, white	5 x 5 cm	box of 20	
B - 23600	Instant Lifter, white	5 x 10 cm	box of 20	
B - 23700	Instant Lifter, white	10 x 10 cm	box of 20	
B - 23900	Instant Lifter, white	13 x 18 cm	box of 20	
B - 24000	Instant Lifter, transparent	5 x 5 cm	box of 20	
B - 24100	Instant Lifter, transparent	5 x 10 cm	box of 20	
B - 24200	Instant Lifter, transparent	10 x 10 cm	box of 20	
B - 24400	Instant Lifter, transparent	13 x 18 cm	box of 20	



Lifting Tape

Cat. No.	Description
B - 19900	Crystal clear 2.5 cm x 10 m
B - 21100	Crystal clear 5 cm x 10 m
B - 21200	Crystal clear 10 cm x 10 m
B - 19800	Dispenser for 2.5 cm-wide tape



Lifting tape on silicone paper

This adhesive film with low tack has a silicone paper backing. A die-cut has been made close to the edge, for easy removal of the protective backing. The adhesive film comes on a roll in a carton dispenser.



Cat. No.	Description
B - 200000	SPURFIX Lifting tape 5 cm x 5 m
B - 200100	SPURFIX Lifting tape 10 cm x 5 m
B - 200200	SPURFIX Lifting tape 15 cm x 5 m

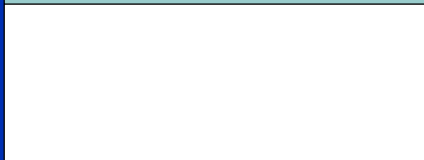


Backing cards

Stiff chrome-coated card, with white or black glossy surface. The reverse side has a white matte finish, on which notes can be written. For use with transparent gelatin lifters and lifting tape.



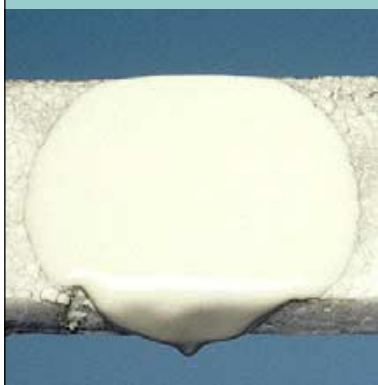
B - 22100	Backing card, black	13 x 18 cm	package of 50
B - 22200	Backing card, black	13 x 36 cm	package of 50
B - 22300	Backing card, white	13 x 18 cm	package of 50
B - 22400	Backing card, white	13 x 36 cm	package of 50



Silicone rubber compounds for fingerprint lifting

Certain surfaces have such a texture that even with gelatin lifters, it is hard to lift powdered fingerprints in their entirety. Examples are: Hammerite painted coin boxes and polystyrene packaging material. In these cases, white or black silicone rubber casting compound can be used. The casting compound is mixed with hardener and diluant (if needed) and poured over the print developed with fingerprint powder. After the silicone rubber has cured, the fingerprint is lifted.

Depending on the color of the fingerprint powder that was used, white or black silicone rubber is used for contrast. The white rubber has been formulated in such a way that backlighting of the cast is still possible.



silicone pastes

Cat. No.

C - 1400
C - 1500
C - 2100
C - 2200
C - 3100
C - 7200
C - 4000
C - 5000

Description

SILMARK, white, 150 g in tube, with paste hardener
SILMARK, white, 150 g in tube, with fluid hardener
SILMARK, black, 150 g in tube, with paste hardener
SILMARK, black, 150 g in tube, with fluid hardener
Hardener for SILMARK, 10 ml fluid in a bottle with a measuring cap
Hardener for SILMARK, 20 g paste in a tube
Drop-bottle (glass) with SILMARK diluant, 10 ml
Bottle (polyethylene) with SILMARK diluent, 100 ml

Fingerprint on leather, dusted with Instant Gold powder and lifted with black Silmark casting compound.



Fingerprint powders

Concentrated powders

Cat. No.	Description
B - 26000	Concentrated Silver, 100 ml
B - 26100	Concentrated Silver, 250 ml
B - 31000	Bristol black, 100 ml
B - 31100	Bristol black, 250 ml

Soot powder mixtures

The Swedish soot powder mixture is an excellent powder for use with a brush. It combines a good adhesion to the fingerprint with minimal adhesion to the background surface.

B - 420000/421000 Swedish soot powder mix, 100/250 ml

Silver Special

Very suitable for relatively clean and smooth non-porous surfaces such as glass, painted wood, steel furniture, hard plastic. Excellent contrast against dark surfaces and black gelatin lifters. This powder is suitable for most surfaces found at crime scenes that have to be processed for fingerprints.

B - 32000 Silver Special, 100 ml
 B - 32100 Silver Special, 250 ml

Gold Special

Gold Special provides better contrast against light-colored surfaces than Silver Special. However, it adheres more strongly on surfaces and is therefore less suitable for routine use. Prints powdered with it and then lifted with a gelatin lifter will gradually sink into the gelatin layer.

B - 33000 Gold Special, 100 ml
 B - 33100 Gold Special, 250 ml

Black Special

Like the other special powders, this powder requires a relatively clean surface. Surfaces well suited to this powder are china, enameled domestic appliances, and coated papers including cardboard.

B - 34000 Black Special, 100 ml
 B - 34100 Black Special, 250 ml

Concentrated powders are unmixed powders that are applied with a fingerprint brush. They are more difficult to use than the special powders.



The special powders are mixtures, with better characteristics than the concentrated powders. Thereby:

- “greasy” features are reduced
- lumps are avoided
- prints show better contrast
- far fewer problems are encountered with excessive use of powder (e.g., smearing of prints)

Consequently, the development of latent prints can be done much faster, with less risk and better results.

Fingerprint powders

Instant powders

Instant powders are, like the special powders, mixtures that diminish the risk of smearing prints. The difference between the instant and the special powders lies in the particle size of the diluant. With the instant powders, these particles are larger than those used in the special powders. Therefore, the instant powders have even fewer “greasy” characteristics than the special powders and can be used on surfaces where the risk of smearing a print is especially large. The powder (instant silver, gold, and black) can be sprinkled generously over a surface from the brush, after which the powder particles are moved over the surface by tapping the object. Instant white is safer than the toxic lead white powder. The formulation was greatly improved in 2002.

Cat. No.	Description
B - 37000	Instant silver, 100 ml
B - 37100	Instant silver, 250 ml
B - 38000	Instant gold, 100 ml
B - 38100	Instant gold, 250 ml
B - 39000	Instant black, 100 ml
B - 39100	Instant black, 250 ml
B - 40000	Instant white, 100 ml
B - 40100	Instant white, 250 ml



Fluorescent powder for brush

Fluorescent powders allow relatively easy photographing of fingerprints found on textured or variously colored surfaces, without lifting. While dusting, development of the prints should be closely monitored. Use a UV lamp or Polilight and viewing goggles during powdering. Specially recommended for these powders: marabou brush B-57000.

Redwop™ powder fluoresces orange/red (about 600 nm) after excitation in a wide range of wavelengths, from UV through green light.

B - 47800	Redwop powder, 60 ml in a wide-mouth jar.
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Fingerprint powders

Magnetic powders

Magnetic Jet Black

A deep black, strongly adhering powder providing excellent contrast. This very popular magnetic powder can be used on many surfaces. Examples are: aluminum, candles, and polystyrene foam. Very fresh fingerprints on paper can also be developed with this powder. A special application is in making comparison prints of shoe soles. The soles are coated with a very small amount of silicone oil (for example, from the SLM spray), and an impression is made on a sheet of paper, then visualized with Magnetic Jet Black.

Cat. No.	Description
B - 45000/45100	Magnetic Jet Black, 200/500 gram

Magnetic Silver

A strongly adhering powder providing excellent contrast on dark surfaces.

B - 44000/44100	Magnetic Silver, 200/500 gram
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Magnetic Grey

Less adhesion than Magnetic Silver, far less risk of smearing a print.

B - 46000/46100	Magnetic Grey, 200/500 gram
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Magnetic Black

Adheres a bit less than Magnetic Jet Black. However, the adhesion to the background when developing prints on dirty surfaces is also reduced.

B - 47000/47100	Magnetic black, 200/500 gram
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Magnetic Special Grey

A special characteristic of this powder is that it works well on plastics and visibility is good, on both light and dark-colored surfaces. When inadvertently too much powder is used, the excess can be removed with an ordinary fingerprint brush.

B - 47500/47600	Magnetic Special Grey, 200/500 gram
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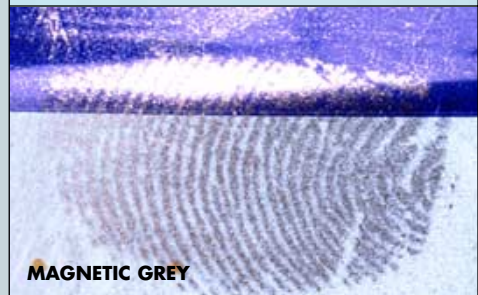
Other magnetic powders

B - 42000/42100	Magnetic Red, 200/500 gram
B - 43000/43100	Magnetic White, 200/500 gram

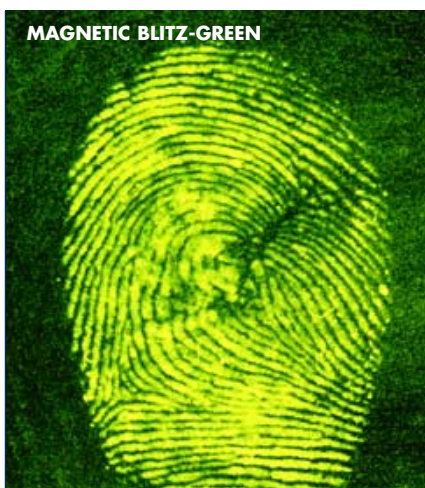
Magnetic powders can be used only in combination with a magnetic brush. A mixture of iron and pigment particles, such powder is attracted by the magnet in the head of the magnetic brush, causing the iron particles to form a kind of brush.

When the powder has to be returned to the jar, the magnet is drawn up. The broad rim around the head of the magnetic brush prevents the iron particles from following the magnet. Eventually, its attraction to the particles weakens until they fall of the brush.

Due to the nature of the powder and the magnetic brush, use on steel objects is not feasible.



Fingerprint powders



Magnetic fluorescent powders

Magnetic fluorescent powders allow relatively easy photographing of fingerprints on textured or variously colored surfaces, without lifting. Just as with fluorescent powders for use with a brush, development of the prints should be closely monitored. Use a UV lamp or Polilight and viewing goggles during powdering.

Magnetic Blitz-Green™ and Blitz-Red™ fluoresce at excitation in a wide wavelength range: from UV into green light. Since Blitz-Red has a wider excitation wavelength range (higher into the green) than Blitz-Green, its fluorescence is higher (orange/red, about 600 nm) than that of Blitz-Green (in the green, about 520 nm).

Cat. No.

B - 41020/41030
B - 41120/41130

Description

Magnetic Blitz-Green, 200/500 g
Magnetic Blitz-Red, 200/500 g



Powders for blower brush

B - 34400/34500 Concentrated Blower Black, 100/250 ml
B - 35500/35000 Special Blower Black, 100/250 ml
B - 36500/36000 Special Blower Silver, 100/250 ml



Miscellaneous

B - 62000 Magnetic powder kit; leatherette case (175 x 50 x 65mm, l x w x h), containing 4 jars, each with 50 g of magnetic powder (standard set: Magnetic Jet Black, Black, Silver, and Special Grey) and a magnetic brush.



Latent Silver, fingerprint powder in a spray can (150 ml)
Latent Black, fingerprint powder in a spray can (150 ml)
Latent Gold, fingerprint powder in a spray can (150 ml)

Fingerprint brushes



Squirrel hair brushes

In powdering fingerprints, a fine quality brush is indispensable. Since stiff hairs can damage papillary ridges, the fingerprint brushes below are made from a type of very soft hairs, commonly known as squirrel hair.

Brushes need to be replaced from time to time, since in use they inevitably absorb greasy substances and begin to pick up too much powder.

The higher the number of the brush, the larger the cross-section of the head. The round brushes are packaged in a plastic tube with caps on each end. Extra sturdy containers can be ordered separately (next page).

Cat. No.

Description

B - 50000

Round fingerprint brush, nr. 6, black lacquered shaft, length: 19 cm

B - 51000

Round fingerprint brush, nr. 8, black lacquered shaft, length: 19 cm

B - 51200

Round fingerprint brush, nr. 8, short black lacquered shaft, length: 14 cm

B - 51300

Round fingerprint brush, nr. 10, black lacquered shaft, length: 16 cm.

B - 53000

Flat fingerprint brush, unlacquered, the width of the brush is 4 cm

Magnetic brushes

Magnetic brushes can be used only in combination with magnetic powders.

B - 60000

Magnetic brush, black anodized aluminum

B - 60100

Magnetic brush with a stronger magnet and a larger head. The shaft, for withdrawing the magnet, has a knob on the end and is spring-loaded. This keeps the magnet in place when developing prints above shoulder level and keeps the powder from falling off.

Miscellaneous brushes

B - 57000

Marabou brush, feather-duster with a black lacquered shaft

B - 55000

Zephyr brush, a brush with fiberglass filaments used in a special technique: the shaft of the brush is rotated between thumb and fingers while dusting for prints.

Fingerprint brushes



Cat. No.

Description

- B - 52000 Blower brush with marabou feather duster
 B - 52100 Spare marabou brush for blower brush
 B - 52200 Spare zephyr brush for blower brush
 B - 52000 Blower brush with zephyr head
- B - 52500 Dust-free box for blower brush, white plastic with a transparent sliding lid. Dimensions: 27.5 x 6 x 5.5 cm.
 B - 65000 Container for brush, extra sturdy

Amino acid reagents



- B - 78500 NIN-PRINT, ninhydrin solution in a spray can (CFC-free, 250 ml). Does not contain acetic acid and evaporates very fast. Inks do not run with this spray.
- B - 79000 Ninhydrin crystals (2,2-dihydroxyindan-1,3-dione), 10 grams in a brown glass bottle. For making ninhydrin solutions.
- B - 794000 Ready-to-use ninhydrin solution (1 liter container) in petroleum ether 60-80° (plus co-solvents)
- B - 794100 Ninhydrin solution (5 liter containers), same formulation as B-79400



Amino acid reagents

Cat. No. **Description**

B - 794110 Zinc chloride solution (250 ml, in MTBE/petroleum ether) for changing the color of fingerprints developed with ninhydrins and making them fluorescent (although the last is an unreliable procedure with regular ninhydrin). Prints developed with regular ninhydrin change color from purple to orange. With white light, prints show an apparent loss of contrast, but under blue-green light (about 480 nm) they show better contrast than before. This is especially valuable with papers that have blue-green printing on them, since the printing loses contrast under this kind of lighting.

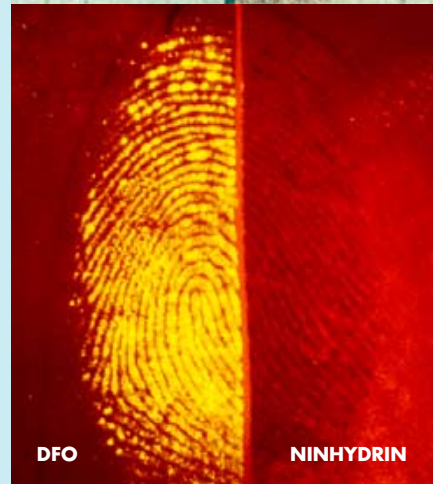
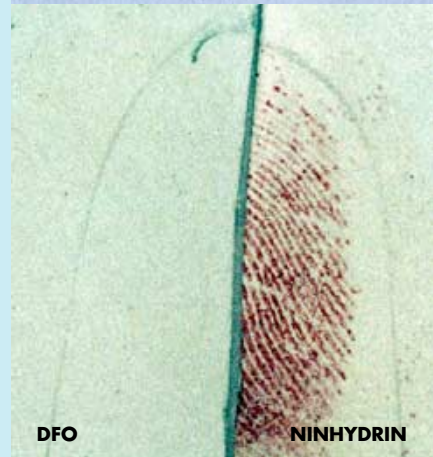
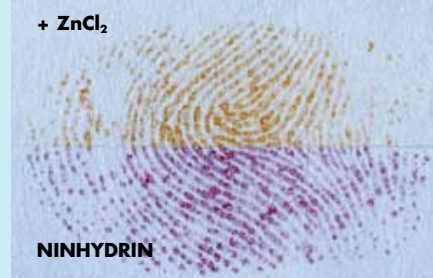
DFO

DFO is a reagent that (like ninhydrin) reacts with the amino acids present in fingerprints. The areas of application are the same: porous surfaces like paper, unpainted wood and the like. A fingerprint developed with DFO is less visible in white light than after treatment with ninhydrin but with green light (about 530 nm), it fluoresces strongly. The fluorescence is viewed and photographed through orange or red filter (goggles). Research in the UK, on the CFC-113 (1,1,2-trichlorotrifluoroethane, also known as Frigen, Fluorisol, and Arklone) based solution containing 0.5 g DFO per liter, showed that it developed up to three times as many identifiable prints as ninhydrin. The petroleum ether-based solutions of DFO are said to be less effective than the CFC-113 based one, but CFC-113 has been banned because it is a strongly ozone-depleting chemical.

B - 79500 DFO (1,8-diazafluoren-9-one), 1 g in a brown glass bottle. For the preparation of DFO solutions.

B - 799000 DFO set: solutions to mix up 1 liter of working solution. Consists of: 60 ml concentrated DFO solution (0.3 g in methanol/acetic acid), 110 ml of a solvent mix (acetone, xylene, and isopropanol) and diluant (830 ml of a petroleum ether 60-80°/MTBE mixture).

B - 795000 Plastic dipping-tray for treating papers with ninhydrin, DFO, 5-MTN and so forth. Due to the curved shape, only small amounts of reagent can be used, minimizing problems of unwanted evaporation. The ribbed bottom makes it possible to feed papers through the solution. The maximum width of an item to be treated is 23.5 cm. The tray's outside dimensions are 27.5 x 29 x 5.5 cm.



Amino acid reagents

Preparations
developed in
our own
laboratory

5-MTN[®]

Visible and fluorescing
Unique product!
Produced by BVDA

5-Methylthioninhydrin (5-MTN) is a reagent for fingerprints that combines the favorable characteristics of ninhydrin (strong color) and those of DFO and 1,2-IND (strong fluorescence).

5-MTN-developed fingerprints have a stronger color than those developed with regular ninhydrin. Therefore, the working solution can have a lower concentration (at 3 g per liter, the strength of the color is about the same). After treatment with zinc chloride, 5-MTN-developed prints do not become orange, but a more reddish colored purple. The fluorescence of the fingerprint is better than DFO.

Cat. No.

B - 78200

Description

5-MTN, 1 gram in brown glass bottle.

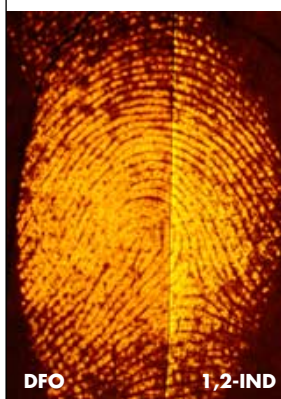
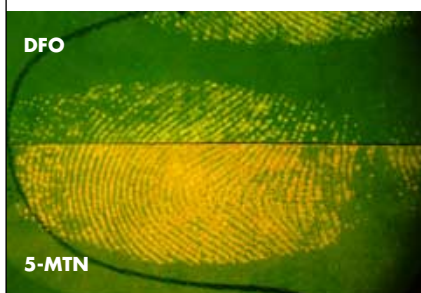
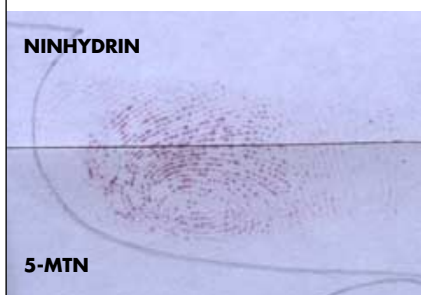
1,2-IND[®]

1,2-IND (1,2-indandione) is a reagent for fingerprints found on paper, which can best be compared to DFO. Like DFO, it does not produce strongly colored prints (at best, a light pink color), but fluoresces strongly after excitation with green light. At a concentration of 1 g per liter, 1,2-IND-developed fingerprints will show a fluorescence equal to, or better than, DFO (using the original, CFC-113-based formulation of 0.5 g DFO per liter, with two dippings).

Advantages of 1,2-IND include better solubility, which provides a more stable working solution. Solutions are not stable indefinitely, however, since the 1,2-IND molecules interact over a period of weeks, resulting in compounds that will not develop fingerprints. 1,2-IND-treated papers show no discoloration, unlike DFO, with which they become yellow. A peculiarity of 1,2-IND is that the treated papers with visualized prints must be kept in the dark to preserve them.

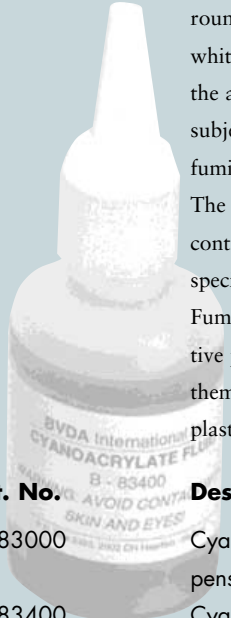
B - 78100

1,2-IND, 1 g in brown glass bottle.



*The photographs
of the fluorescing
fingerprints were
made with a MIC*

Cyanoacrylate fuming



The vapor (fumes) of the cyanoacrylate monomer tend to polymerize more quickly on a fingerprint than on the surrounding, clean surface. The polymerization shows as a white deposit. The effectiveness of this process depends on the age of the fingerprint, the conditions to which it was subjected, and the way the fuming is done. For optimal fuming, a relatively high humidity (around 80%) is ideal. The visibility of weak prints and prints developed on non-contrasting (light-colored) surfaces can be improved with special staining solutions.

Fuming with cyanoacrylate has proved to be a very effective process, especially on those surfaces that do not lend themselves to dusting with fingerprint powders (such as plastics).

Cat. No.	Description
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- | | |
|-----------|---|
| B - 83000 | Cyanoacrylate (ethyl cyanoacrylate) in a plastic dispensing bottle (50 ml). |
| B - 83400 | Cyanoacrylate (ethyl cyanoacrylate) specially formulated for fuming. In a plastic dispensing bottle (50 ml). |
| B - 85000 | Hard Evidence, cyanoacrylate gel, packaged in a special pouch. Immediately before use, both sides of the envelope are separated, allowing the cyanoacrylate to evaporate. Very suitable for use at a crime scene, or in a car or other small space. |

Cyanoacrylate staining solutions

After development with cyanoacrylate, fluorescent staining solutions can be applied to improve the contrast of weak fingerprints and those on light-colored surfaces.

Application methods include spraying, dipping, dabbing, and brushing. After rinsing with water to remove excess staining solution, the object is dried and examined with a suitable light source and viewing goggles. The light source excites the fluorescence of the dye from the staining solution. The viewing goggles should allow only the light of the fluorescence to pass and not the light used for excitation. Depending on the nature of the fingerprinted object (which should not fluoresce in the range where the dye fluoresces) and the availability of a suitable light source and filters, a choice can be made from the following staining solutions. The fluorescence of Ardrox is induced with long wave UV. A disadvantage of Ardrox is that the fluorescence gradually disappears (over a period of months).

- | | |
|-----------|--|
| B - 89100 | Ardrox solution, 500 ml in a spray bottle (isopropanol based). |
|-----------|--|



Cyanoacrylate fuming

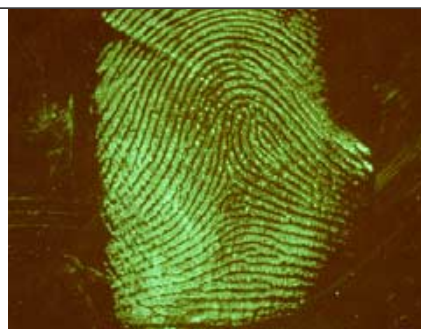
Cat. No. **Description**

Basic Yellow 40 is an excellent dye stain for cyanoacrylate. It fluoresces under blue light (use yellow goggles/filters to view and photograph the fluorescence). The solutions B-85200 and B-85300 can be diluted.

B - 85200

B - 85300

Basic Yellow 40, 100 ml solution in a polyethylene bottle
Basic Yellow 40, 500 ml solution (2 g/liter in ethanol), in a spray bottle.



Safranin O is a dye stain for cyanoacrylate that fluoresces under green light (use red goggles/filters to view and photograph the fluorescence). The solutions B-84100/84200 are concentrated solutions that need to be diluted strongly (with ethanol) to prepare working solutions. The fluorescence is less strong than with Basic Yellow 40.

B - 84100

B - 84200

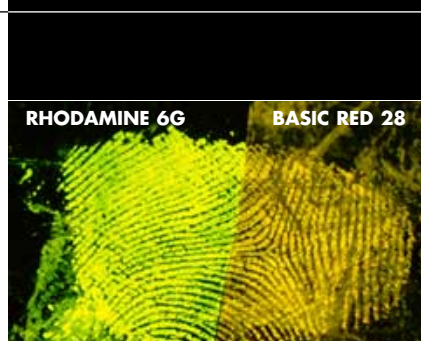
Safranin O, 100 ml solution in a polyethylene bottle
Safranin O, 500 ml solution (4 g/liter in ethanol), in a spray bottle.



Rhodamine 6G is an exceptionally strong fluorescing stain for cyanoacrylate. Like Safranin O, it fluoresces with green light. The solution B-84500 is petroleum ether-based (so inks on polyethylene bags will not run) and need not be rinsed with water after application.

B - 84500

Rhodamine 6G staining solution, petroleum ether-based, 1 liter in a can.



Basic Red 28 is a dye that fluoresces under green light. The background staining is somewhat stronger than that of Basic Yellow 40.

B - 85350

Basic Red 28, 500 ml solution (2 g/liter in ethanol) in a spray bottle.



Sudan Black is a non-fluorescing dye in an ethanol/water mixture that can also be used for staining of cyanoacrylate (for example, when the surface with the prints is fluorescent, or has become fluorescent after earlier application of a fluorescent dye stain). The cyanoacrylate is colored blue to black, depending on the degree of absorption.

B - 87000

Sudan Black staining solution, 500 ml in a stoppered polyethylene wash bottle.



Cyanoacrylate fuming

Miscellaneous

Cat. No.	Description
B - 85500	Hot plate (20 x 20 x 2 cm, 130 W) for cyanoacrylate fuming. Has a fixed temperature (130°), and no switching parts (no sparks!). The electrical cord is 2 meters long.
B - 85600	Disposable aluminum dishes for heating of cyanoacrylate. Cross section of the dishes is 4 cm. Package size is 100 dishes.



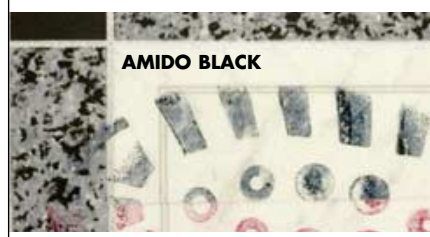
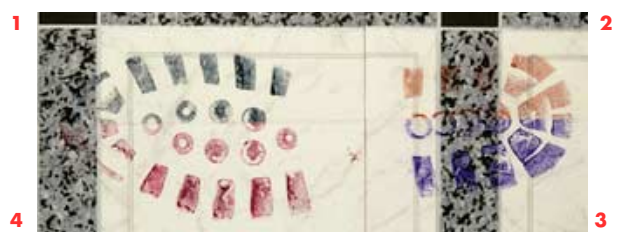
Sudan Black

	Sudan Black is a non-fluorescing blue-black dye solution in aqueous ethanol. Apart from staining of cyanoacrylate, it is used for direct staining of fingerprints. The method is not very sensitive, but can be successful on contaminated objects: greasy objects, soda cans with dried residue of the contents.
B - 87000	Sudan Black staining solution, 500 ml in a stoppered polyethylene wash bottle.



Staining of traces in blood

Amido Black is a dye that stains the protein component of blood blue-black. Amido Black staining solution can be methanol- or water-based. Amido Black in methanol has a greater staining power, but due to the toxicity of the methanol, it is also more dangerous. For use on a crime scene (for example, shoeprints in blood) the water-based staining solution is advised.



B - 89500	Amido Black set, water-based. The set consists of two 500 ml spray bottles, one with Amido Black staining solution (B-89600) and the other with a blood fixative (2% 5-sulphosalicylic acid in water, B-89700).
B - 89501	Amido Black set, methanol-based. Apart from fixative (B-89700) and staining solution (500 ml in spray bottle, B-89601), the set also contains two rinsing solutions for removing background staining: 500 ml methanol/acetic acid and 500 ml 5% aqueous acetic acid.

- 1 AMIDO BLACK
- 2 CROWLE'S STAIN
- 3 COOMASSIE BLUE
- 4 HUNGARIAN RED