

Application instructions for test strips

DFO (1.8 Diazafluoren-9-one) and Ninhydrin react to amino acids contained in human protein. Research has shown that when DFO is used on documents, 2 - 3 times more latent prints are developed than with ninhydrin alone.

Ninhydrin is available as a ready-to-use spray solution. The ready-to-use DFO-Solution is freshly prepared.

Flammable chemicals are used in the following solutions. Special care is therefore required in the preparation, application and storage of the solutions. We recommend to work under a fume cupboard with protective gloves and protective clothing.

Always note the information in the safety data sheet



1. Preparing the DFO solution

0,5 g DFO dissolve in
40 ml methanol. Then add
20ml of icy vinegar
and make up to
1000ml with Butylmethylether (or Hydrofluorether)

**DFO- Store solution in dark glass bottle!
Storage time approx. 2 - 3 weeks.**

2. Application

DFO

Immerse the test strip in the DFO solution for approx. 10 seconds. After approx. 3-5 minutes drying time, immerse it again in the solution and allow it to dry for another 3-5 minutes.

Experience shows that diving twice leads to better results. Then place the test strip in a warm or dry bar at 100°C for approx. 10 minutes. The evaluation is carried out under a forensic light source or a laser:

Excitation wavelength /nm: 450 - 570
Emission wavelength /nm: 560 - 650

Ninhydrin-spray

Spraying the test strip with Ninhydrin allow to dry and spray again. After drying, place the test strip carrier in a climatic chamber at a relative humidity of 60-80% for store for approx. 24 hours. A temperature of approx. 50°C in the climatic chamber accelerates the process.

3. Use of both detection methods DFO / Ninhydrin

If both DFO and Ninhydrin are to be used to treat a piece of evidence, the first step should be treatment with DFO to achieve fluorescence. DFO will not fluoresce on an object that has already been treated with Ninhydrin.

4. Storage and shelf life

The test strips can be stored in the original container in a darkened environment, e.g. in an office cabinet or in a drawer at room temperature for approx. 2 years. During storage, high humidity and direct sunlight should be avoided.

Picture after Ninhydrin

