

TECHNICAL INFORMATION

Ninhydrin Crystals

Catalog Nos. NRP01A, NRP02B, NRP03C

INTRODUCTION

A ninhydrin solution is effective in developing latent fingerprints on porous surfaces such as paper, cardboard, or raw wood. This reagent is a biological stain that reacts to the amino acid content of latent prints. Amino acids form a permanent chemical bond with the cellulose content of these porous surfaces being examined, and laboratory tests indicate that excellent results may be obtained even when prints are known to be several years old. SIRCHIE provides ninhydrin in crystal form for those laboratories wishing to prepare their own working solutions. A number of working solutions have evolved over time, and listed below are some of those formulas that have proven to be the most effective.

PRECAUTIONS

- Before using this kit, consult the appropriate Material Safety Data Sheets (MSDS) found on our website at www.sirchie.com and click on MSDS.
- Seek medical attention immediately if this product is swallowed. Keep away from children.
- Wear protective gloves and goggles when mixing and using working solutions.
- Test this product on non-evidentiary items to gain familiarity with the process.
- If any of this material contacts the eyes or skin, flush with water.
- Direct contact with exposed skin may produce a purple stain.

NOTE: Formulas containing acetone may cause inks to run.

PROCEDURE

Working Solution No. 1. Acetone

1. Dissolve 5 grams of ninhydrin crystals in 1000ml of acetone. Stir until completely dissolved.
2. Add 10ml glacial acetic acid. Stir the mixture.
3. Place in a suitable container and label: *Ninhydrin with Acetone. FLAMMABLE!*

The acetone formula is ready for use.

Stock/Working Solution No. 2. Ethanol

Part 1. Stock Solution

1. Add 15g of Ninhydrin to 45ml ethanol.
2. Add 30ml glacial acetic acid.
3. Add 15ml ethyl acetate.
4. Continue stirring this mixture until the ninhydrin is fully dissolved.
5. Place the stock solution in a suitable container and label: *Ninhydrin Stock Solution. ETHANOL. FLAMMABLE!*

This solution has a shelf life of approximately 90 days at room temperature.



Part 2. Working Solution

1. Add 30ml. of the stock solution (above) to one liter of VERTREL® XF or VERTREL® MCA.*
2. Stir well.
3. Place in a clean plastic coated glass container and label: *Working Solution Ninhydrin ETHA-NOL. FLAMMABLE!*

Uncontaminated working solution has a shelf life of approximately 30 days at room temperature.

Stock/Working Solution No. 3 HFE7100 NOVEC® **

Part 1. Stock Solution

1. Add 25g of Ninhydrin to 225ml of ethanol. Stir with magnetic stirrer until fully dissolved.
2. Add 10ml ethyl acetate.
3. Add 25ml glacial acetic acid. Stir until a clear yellow solution is produced.
4. Place mixture into a clean plastic coated, glass bottle with tight fitting cap.
5. Label the container: *Ninhydrin HFE Stock Solution. FLAMMABLE!*

Concentrate has a shelf life of approximately 12 months at room temperature.

Part 2. Working Solution

1. Add 52ml of Stock Solution to 1 liter of HFE7100.
2. Stir with a magnetic stirrer until a pale yellow solution results.
3. Place in a clean plastic coated glass container and label: *Working Solution Ninhydrin HFE7100.*

Working solution has a shelf life of approximately 12 months at room temperature.

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NOVEC HFE7100 is available from SIRCHIE® by specifying Catalog No. NS7100

TI02-30ENG-REV3

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