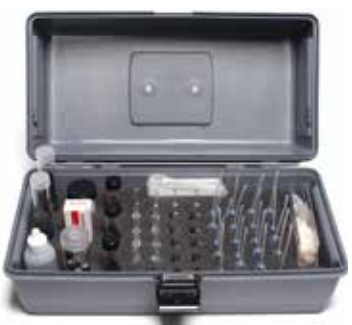
TECHNICAL INFORMATION

Explosives Residue Test Kit

Catalog No. ERTT10

INTRODUCTION

Based upon an extremely sensitive test for nitrates, this kit is suitable for use in the laboratory or in the field to verify the presence of explosives in suspected debris. The test components have been pre-measured and packaged to make testing in the field easy and accurate when examining an explosive material as small as a grain of salt (0.06 gram). This test alone is not conclusive for the presence of explosives since other nitrates can also give positive results. Results from this test should be further verified with confirmatory testing in a laboratory.



PRECAUTIONS

- Before using this kit, consult the appropriate Material Safety Data Sheets (MSDS) found on our website at www.sirchie.com/support.

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- Wash hands thoroughly prior to using this kit.
- Wear protective clothing, safety glasses, and nitrile or latex gloves when handling the chemicals in this kit.
- ***WARNING!*** The ER1 Extract Reagent in this kit contains chloroform. In case of exposure, consult the MSDS.
- ***WARNING!*** The 290P2 reagent contains sulfuric acid and is highly corrosive. It is recommended that rubber or vinyl gloves be worn when opening vials, when applying the reagent, and when disposing of all materials that come in contact with the reagent.

DIRECTIONS

The following directions are applicable to both field and laboratory use when it is suspected that soil, a fragment of material, portion of a solid, or dust particles at the scene of a fire or explosion might contain an explosive residue.

DO NOT PERFORM THIS TEST PROCEDURE WITHOUT WEARING NITRILE OR LATEX GLOVES, EYE PROTECTION, AND A MINIMUM N95 DUST PARTICLE MASK.

1. Using the tweezers provided in the kit, transfer a grain of suspected material to an extract retention vial as shown in Fig. 1. (If the sample is a powder, use the small stainless steel spatula rather than the tweezers.)
2. Remove an extract reagent ampoule labeled ER1. Carefully squeeze the ampoule in the tube between the thumb and forefinger to break the ampoule. (Fig. 2).
3. Turn the ampoule on its end to allow reagent to drip into the retention vial. Transfer enough of the ER1 extract reagent to the extract retention vial to cover the suspected debris. (Fig. 3)

FIGURE 1

FIGURE 2

FIGURE 3

FIGURE 4

FIGURE 5

FIGURE 6

FIGURE 7

4. Close the vial tightly and shake for one (1) minute.
5. Place one of the capillary tubes into the bulb tipped holder (Fig. 4). Squeeze the bulb slightly, and place the capillary into the retention vial. Release the bulb to allow the liquid to enter the capillary tube (Fig. 5).
6. Holding the capillary in a vertical position, place the bottom tip onto the thin layer chromatogram sheet. Upon contact with the sheet the liquid will drain out (if the liquid does not come directly out, squeeze the bulb gently until the capillary action begins). Repeat steps 5 and 6 several times to concentrate the liquid at the spot. Allow time for the liquid to evaporate after each application (Fig. 6).
7. Remove and carefully open the vial labeled 290P2.
8. Using a disposable pipette, drop some of the 290P2 color-developing reagent onto the chromatogram sheet in the area where the spot is located (Fig. 7).
9. A blue to almost black color is a positive reaction for nitrates. If a positive reaction is obtained, place a larger sample in a solid sample collection vial and label it for transfer to the laboratory for more comprehensive tests.

TEST FOLLOW-UP

1. Using a small piece of swabbing cotton wetted with some of the leftover extract reagent (ER1), clean off the forceps or spatula. They are now ready for the next use.
2. All ampoules, bulb pipettes and reagent vials are meant for single use and should be disposed of according to local regulations after use.

ERTT10 CONTENTS:

20- 288DP Pipettes, Disposable, w/ Capillary and 3ml Bulb
10- 290P2 P2 Color Developing Reagent, Ampoules, 2ml
1- ACN2 Acid Neutralizer, 2 oz. (59ml)
3- EIL011 Evidence Identification Labels, “Crime Evidence”
10- ER1 Extract Reagent 1, Ampoules, 1ml
1- KCP139 Tweezers, Plastic, 4.75" (12.1cm)
1- KCP140 Spatula, Stainless, Micro
3- KCP173 Vial, Glass, 1/2 oz. w/ Closure
10- KCP174 TLC Plates, Silica Gel 60A, 250μm Layer, 5cm x 10cm
1- KCP191 Box of 100 capillaries and holder
15- KCP217 Cotton Balls
10- KCP171 Vials, Glass, w/Closure, 1/2 dram
1- SF00771 Latex Powdered Glove Pair, Ambidextrous, .005" thick, Lg.
1- ERTT101 Carrying Case, Molded Copolymer, w/Latch; Dimensions: 16.25" x 7.25" x 8.625" (41.6cm x 21.9cm x 17.8cm); Weight: 4 lbs. (1.8kg