

SAFE-T® WIPE

Substance Activated Fast Evaluation Technology



RAPTOR
DETECTION TECHNOLOGIES

Explosives Sensing Wipes



Product ID: 600 4 004

Explosives:

TNB, TNP, TNT, Tetryl, Urea Nitrate, Ammonium Nitrate

Applications:

- Homeland Security
- Transportation Security
- Buildings Access Control
- Military and Defense
- Stand-off IED Detection
- Environmental Monitoring and Control
- Forensic Applications
- Medical Applications

Unique Technology

The core of Raptor Detection Technologies' Substance Activated Fast Evaluation Technology (SAFE-T®) is a patented detection method based on molecularly imprinted polymers (MIPs). This nanotechnology is capable of selectively sensing microscopic amounts of explosives or other molecules that are dangerous for humans and the environment, e.g. toxins, chemical agents, biological agents, pesticides, poisons, and explosives.

SAFE-T® Polymers

The key to this nanotechnology is the preparation of the polymer. Each formulation of SAFE-T® polymer is specially imprinted with the molecular shape of the substance targeted for detection. This provides a receptor site that is highly specific because other molecules don't fit and therefore do not set off a detection indicator. Multiple SAFE-T® polymers are then combined into a single solution that has the capability to

detect all specific substances of interest. The SAFE-T® polymers are robust, stable and resistant to a wide range of humidity, temperature, acidity and alkalinity factors. Additionally, SAFE-T® polymers are inexpensive, safe to produce and can be sprayed, printed or spin-coated into commercial devices for the detection of a wide range of substances, compounds and biological agents.

SAFE-T® Wipes

SAFE-T® Wipes have been specially formulated to immediately detect explosives and provide a simple colorimetric indicator for the user.

SAFE-T® Wipes benefits:

- Work on a wide variety of explosives, precursors, and multi-agent explosives
- Detect trace amounts of substance
- Detect commercial and homemade explosives
- Collect and retain explosives particles for forensic analysis
- Work complementary to electronic systems
- Can use on all surfaces, including hands, plastics, fabrics
- Can use anywhere, anytime
- Can customize to meet specific customer needs
- Easy to use, reliable and convenient
- Non-toxic
- Low cost
- Biodegradable wipes available

How to Use SAFE-T® Wipes

SAFE-T® Wipes are simple to use and give a positive response only upon contact with explosives. For the best performance, test areas that are most likely to be contaminated, including:

- Hands
- High-touch locations
- Door and luggage handles
- Areas where explosives are likely to have been packed
- Areas on sealed packages where air might leak out
- Other suspicious areas

Usage directions:

1. Select the areas to wipe. With gloved hand, remove single-use wipe from package. Do not unfold.
2. Firmly wipe surface with a single motion in areas likely to contain explosive traces. Do not scrub.

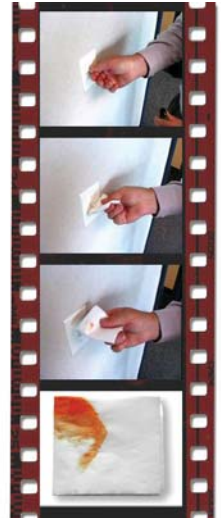
3. Unfold the wipe and use clean section to check additional areas.

4. Examine cloth for color changes after each wipe.

5. If trace amounts of explosives are present, color changes will immediately appear and will grow more intense over time. Color changes may also appear on the wiped area.

6. If no color changes develop over a few seconds, then no explosives are present on the wiped area or the amount of explosives present is less than level of detection.

7. Dispose of used wipes properly.



Detected Explosive Compositions

- Amatol
- Ammonal
- Ammonium Nitrate (AN)
- AN AL
- AN charcoal
- AN sand
- ANNIE
- ANFO
- AN SUL
- Baranol
- Baratol
- CAN
- Comp B
- H6
- Kinepak
- Kinepak-AL
- Minol
- Octol
- Pentolite
- Picratol
- PTX-1
- PTX-2
- Tetrytol
- Torpex
- Tovex

Key

Al: Aluminum

ANFO: Ammonium nitrate fuel oil;
(D) Diesel;
(K) Kerosene;
(M) Motor oil

CAN: Calcium ammonium nitrate

SUL: Slurry

Raptor Detection Technologies, LLC is engaged in ongoing research and development to expand its MIPs detection capabilities



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