

Handheld device for detecting traces of explosives

Noxoon GmbH

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Funded by:



Based on a resolution of the German Bundestag

High sensitivity of the sensor elements



Our first laboratory equipment – the XT-0

Current detection limits:

- 0,02 ng TNT
- 6 ng DMDNB
- < 10 ng TATP
- < 50 ng Ammonium nitrate

Unique selling points

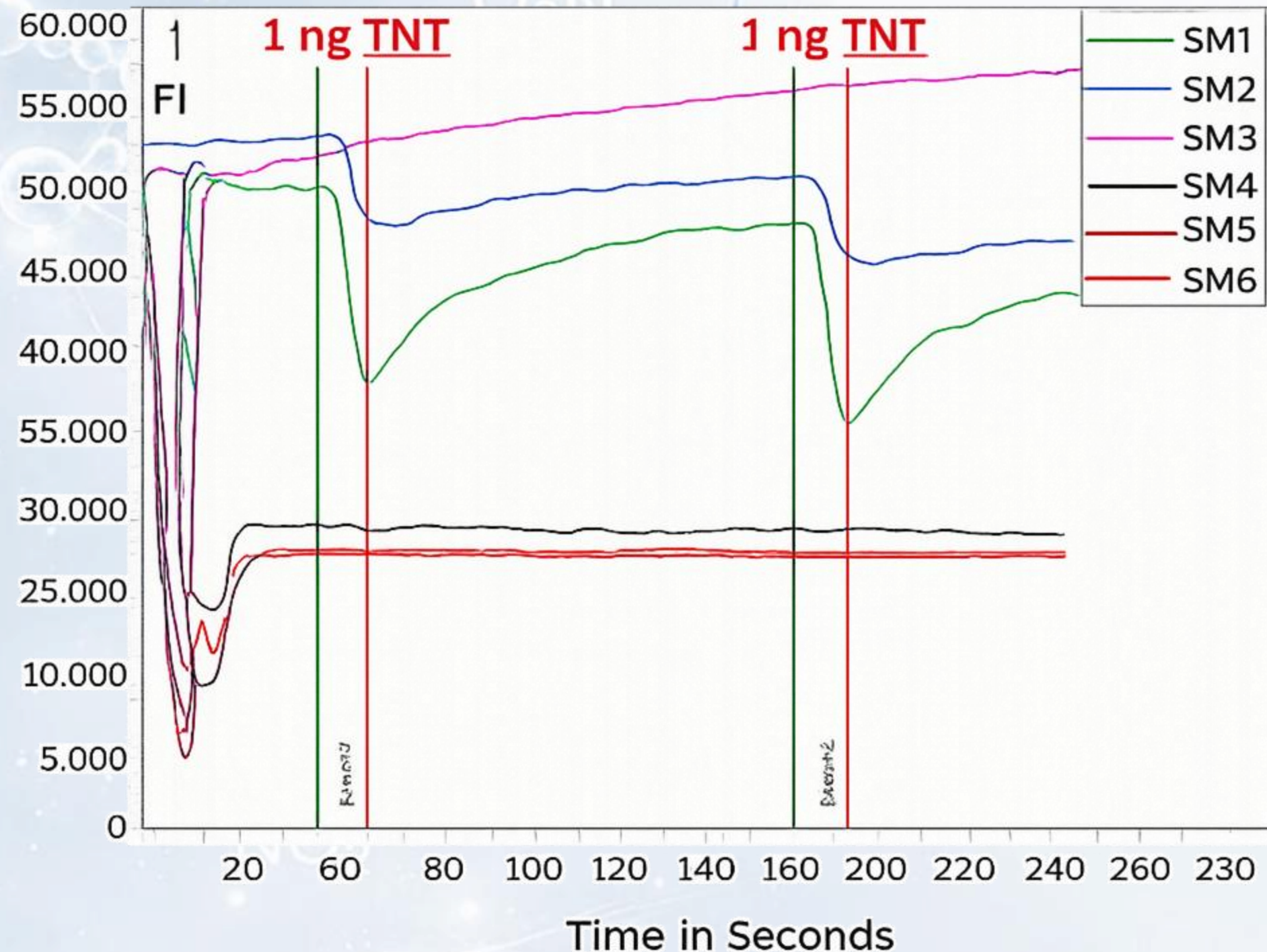
- Detection of inorganic salts
- Detection of explosives in the presence of moisture / water
-> no false alarm
- Detection of explosives and drugs in sealed envelopes
- Cleaning is not necessary after use

Benefits

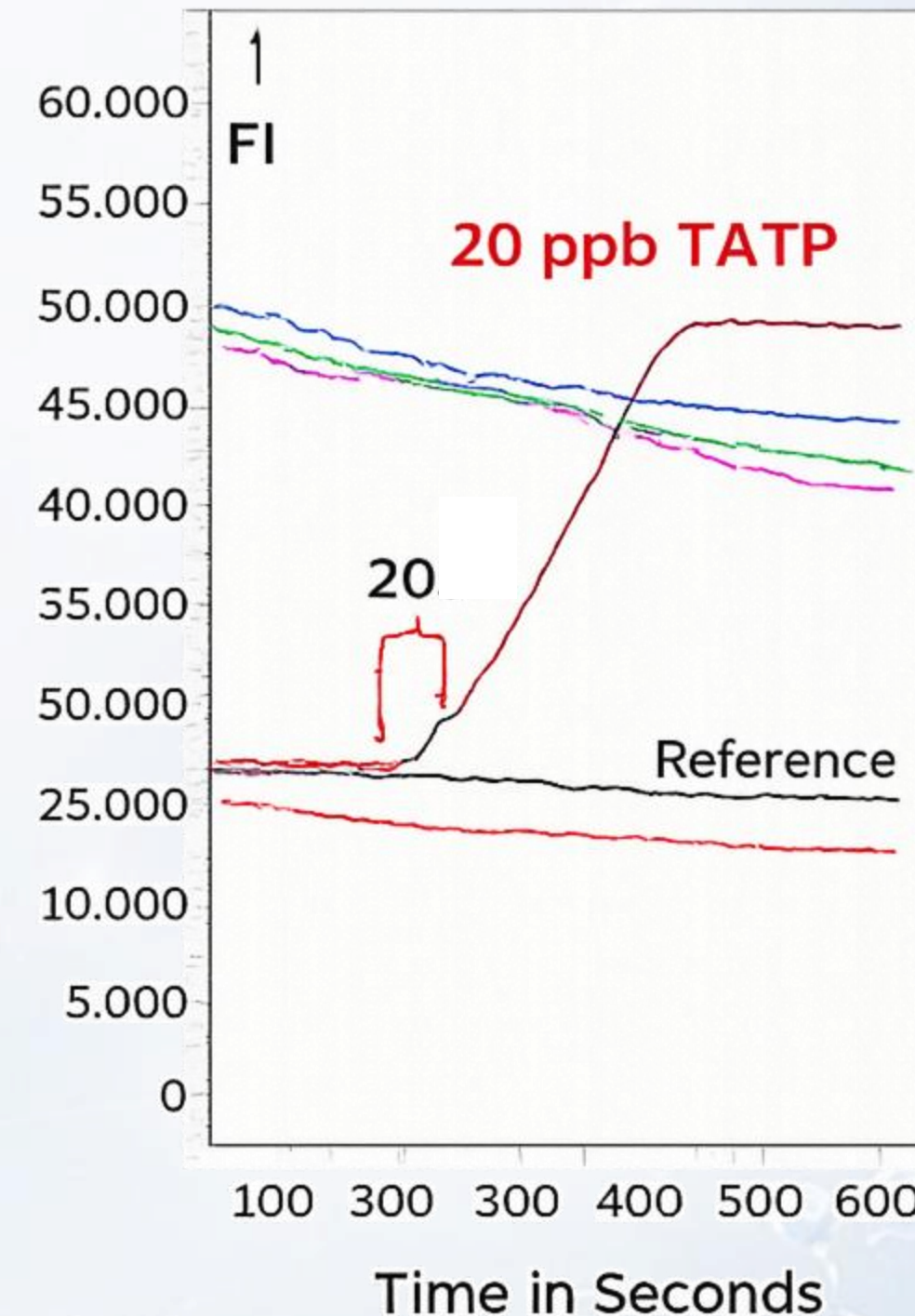
- Explosives identification
- Detection within max. 10 seconds
- 900 g total weight, dimensions approx. 20 x 15 x 6 cm
- No radioactive sources
- Very low maintenance

Detection of explosives by means of fluorescence changes

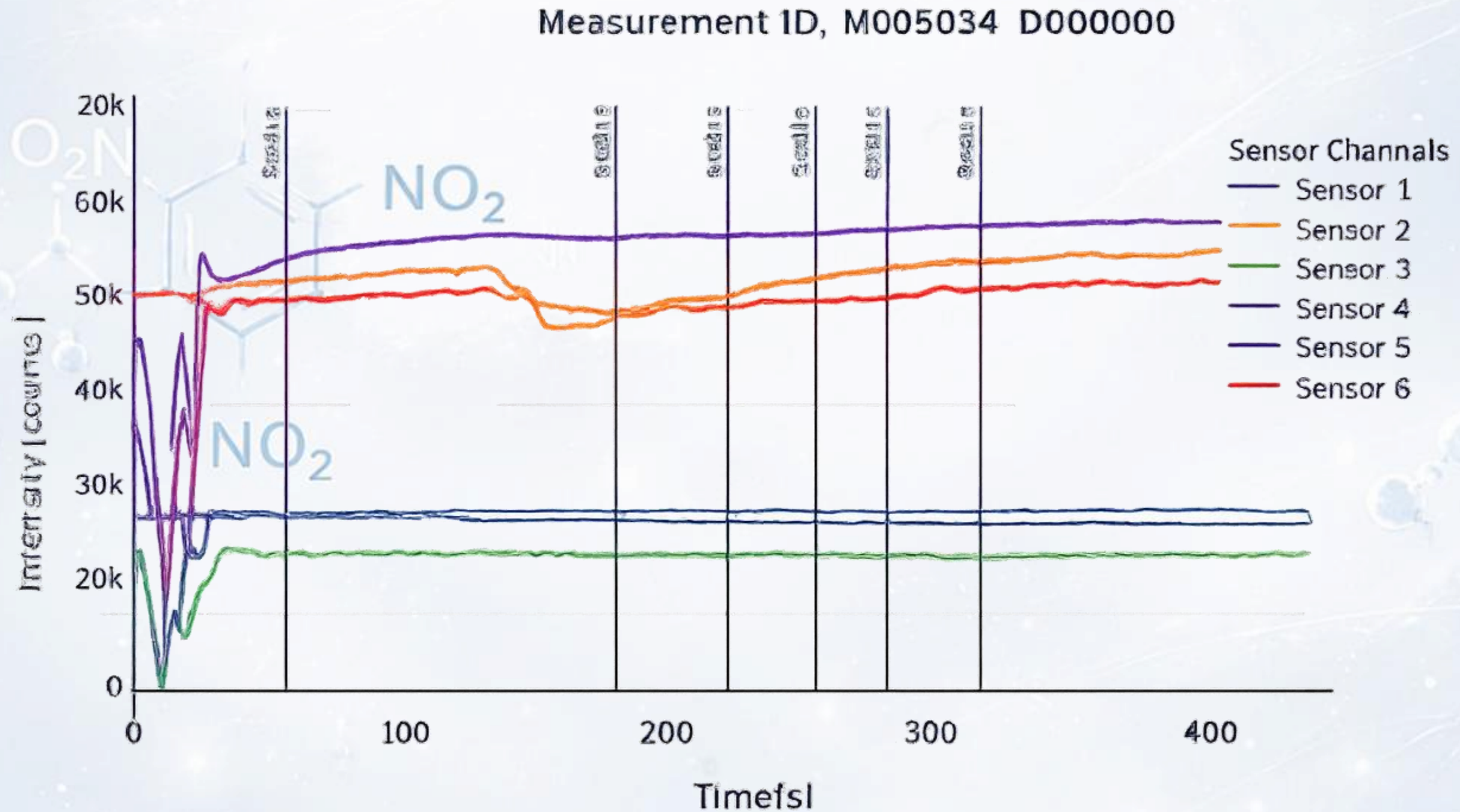
Wipe sample



Sniffing mode



Landmine detection



300 ng of TNT in a glass container (75 ng cm⁻²) under 30 g of sand was detected using an extension of the heating head.

Successfully tested explosives and markers

Nitro: TNT, Tetryl, Picric acid, RDX, HMX, C4, PETN, Semtex, Comp B, Rioseis, Det Cord, Deta Sheet, NSP711, NSP71, Seismoplast, NTO, Nitromethane, Nitroglycerin, Nitroglycol

Markers: DMDNB, Nitrotoluenes, Dinitrotoluenes, Nitrobenzens, Nitrophenols

Nitrates: Ammonium nitrate, Urea nitrate, Austinit, Explogel 100, Explogel 200, Supergel 30

Peroxides: TATP, HMTD, Hydrogen peroxide

Salts: Potassium nitrate, -chlorate, -perchlorate, -fluoride, TKX-50

Others: Low-smoke powder (nitrocellulose), black powder, Pyrodex, R-Salt

Areas of application

- Contaminated sites and landmines
- Drugs
- Chemical warfare agents
- Toxic industrial chemicals
- Strong acids
- Carcinogenic substances
- Counterfeit goods
- Breath gas analytic
- Pyrotechnics

