

TOX-SPOT

Rapid on-site spotting of chemically-contaminated water sources



Portable Contamination Biomonitor



Key Features

Sensitive - sub-ppm detection levels; for most of the tested chemical agents the test is up to hundreds of times more sensitive than other available bioluminescence-based tests.

Fast - results are obtained in 15 minutes.

Discriminatory - a unique buffer set (Pro-Metal & Pro-Organic) enables preliminary discrimination between organic toxicants and cationic heavy metals.

User-friendly & Robust - minimal skill and training is necessary. Can be used anywhere.

Cost effective - saves valuable time and money by minimizing shipment of samples to distant labs.

Description & Benefits

TOX-SPOT is a portable test kit that enables water utilities and supervising organizations to better protect public health.

TOX-SPOT provides early warning of dangerous water contamination in emergency situations due to spills, accidents, sabotage or terrorism. TOX-SPOT enables rapid on site screening to determine changes in water quality in raw and treated drinking water sources and remote locations throughout the distribution network.

The tests can be used by emergency response teams, water companies, health and environmental supervising & monitoring authorities, municipal water system authorities, military units, etc.

Specially designed for field operation, TOX-SPOT provides very rapid and highly sensitive detection of a wide range of acute toxic agents including: respiratory inhibitors, phosphorganic agents, chlorinated hydrocarbons, heavy metals, antibiotics, herbicides, pesticides, PCB's, BTEX, arsenate, nitrite and more.

TOX-SPOT is based on the ETV- verified technology - ToxScreen and is a part of CheckLight's AquaVerity - the comprehensive solution for ensuring drinking water safety.

Data Analysis

Enter the values displayed on the luminometer in the corresponding **white** cells:

	Metal (M)	Organic (O)	IC - Inhibitory Concentration (%)		Comments
			(M)	(O)	
Negative Control (NC)	500	400	100%	100%	Base line
Positive Control (PC)	100	150	80%	63%	
Sample 1 (S1)	100	290	80%	28%	Toxicity Alert !!!
Sample 2 (S2)	20	240	96%	40%	Toxicity Alert !!!

Note: Inhibitory Concentration (light reduction) of 50% and above indicates toxicity !!

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All kits include CD-Rom with Data Analysis Module (Excel), Test Protocol (Step-by-step presentation) and other product information.

Function & Application

The TOX-SPOT test is based on using luminous bacteria as very sensitive and reliable biosensors. The operation principle is simple - changes in the level of bioluminescence indicate potential toxicity. The test kit includes Assay Buffers, freeze-dried luminous bacteria, positive control solutions, and plastic tubes. A Luminometer (numerous models are applicable; minimal sensitivity of 100fmol ATP) is required to read the results.

A starter kit which includes a carrying case holding all the required accessories is provided. Data is stored within the luminometer for later downloading and analysis.

The testing procedure is simple as well: few simple steps that can be performed under varying field conditions. Typical applications include - Mapping after pollution incidents / accidents; Selection of samples for further/more expensive analysis; Mapping to identify toxicity / concentration hotspots.

Ordering Information

Product	Item Description	Qty	Catalog#
TOX-SPOT complete kit	Complete chemical toxicity on-site test kit	1	SPOT-01-C
TOX-SPOT refill pack	50-tests refill pack includes: <ul style="list-style-type: none">◦ Biosensor vials◦ Pro-Metal Buffer vials◦ Pro-Organic Buffer vials◦ Pro-Metal - positive control vials◦ Pro-Organic - positive control vials◦ Empty tubes + caps◦ Hydration Buffer◦ Empty tube for storing clean water	1	SPOT-01-R
TOX-SPOT Accessories	LUM-KK Luminometer PD20N	1	LUM-KK-01
	LUM-KK-Software	1	LUM-KKS-01
	Portable incubator	1	SPOT-INC
	Pipettor	1	SPOT-PIP
	Pipette tips	200	SPOT-TIP
	Timer	1	SPOT-TIM
	Black plastic outdoor case	1	SPOT-CAR