

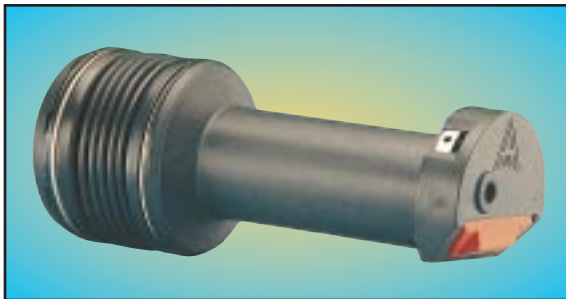
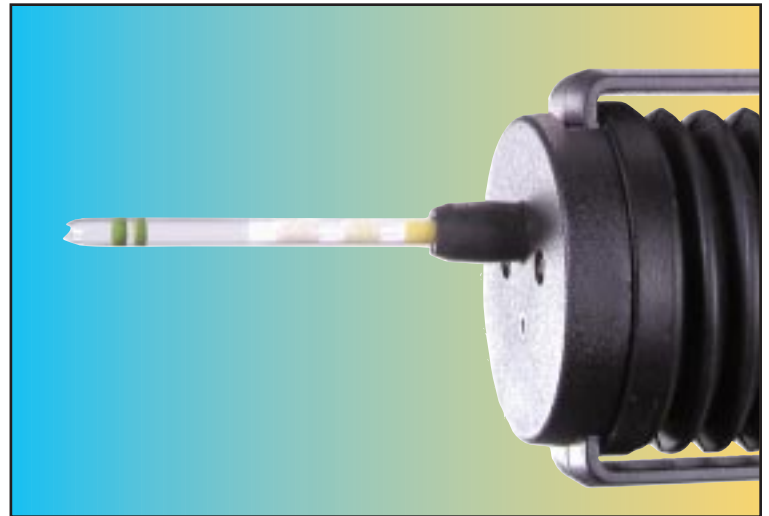
# Detector Tubes for Domestic Preparedness

MSA

The biggest and most lethal challenge facing Haz-Mat and Fire Service professionals today is the need to be able to respond to chemical warfare attacks. MSA offers a convenient, easy-to-use, and effective array of detector tubes and pumps to detect these deadly substances.

## Features

- “Go/No Go” style.
- Extremely easy to use.
- Compatible with MSA’s Kwik Draw, Gas Tester II and Toximeter II pumps.
- Detect very low levels of CW agents.
- Detect nerve, blister, blood, and choking agents.



### Gas-Tester™ II H Pump

- Unique end-of-stroke indicator.
- Integral stroke counter.
- Easy to use.
- One-handed operation.



### Kwik Draw® Deluxe Pump

- One-handed operation.
- Unique end-of-stroke indicator.
- Integral stroke counter.
- Easy to use.



### Toximeter™ II Automatic Detector Tube Pump

- Automatic, eliminates manual pump strokes.
- Can preset up to 250 pump strokes.
- Intrinsically safe.
- Menu can be programmed in 8 different languages.

Easy-to-use detection of deadly substances.

Detector Tubes for Domestic Preparedness

# Sensitivity

## A Summary of Chemical Warfare (CW) Agents

This table reviews the characteristics, exposure symptoms, and some examples of four different CW agent classes.

Agent Classes	Characteristics	Exposure Symptoms	Agent Examples
Nerve agents	Attack nervous system, can enter body through inhalation or skin	<ul style="list-style-type: none"> <li>• Pinpoint pupils</li> <li>• Runny nose</li> <li>• Drooling</li> <li>• Coughing</li> <li>• Tightness in Chest</li> <li>• Muscle Twitching</li> <li>• Nausea</li> <li>• Convulsions</li> <li>• Coma</li> <li>• Death</li> </ul>	Tabun (GA)—CAS #77-81-6; Odor: None or fruity Sarin (GB)—CAS #107-44-8; Odor: None or fruity (used in Tokyo subway attack a few years ago) Soman (GD)—CAS #96-64-0; Odor: None or camphor (mothballs) VX—CAS #50782-69-9; Odor: None or sulfur
Blister agents	Attack skin and can also be inhaled Are absorbed rapidly into skin	<ul style="list-style-type: none"> <li>• Tearing or itching of eyes</li> <li>• Runny nose</li> <li>• Hoarseness or hacking cough</li> <li>• Initial redness of skin, followed by blisters</li> </ul>	Mustard gas (H): no immediate effect Lewisite (L): immediate pain Mustard Gas (H)—CAS #505-60-2; Odor: Garlic Lewisite (L)—CAS #541-23-3; Odor: Geraniums
Choking agents	Attack respiratory tract	<ul style="list-style-type: none"> <li>• Coughing</li> <li>• Irritated eyes, nose, throat</li> <li>• Shortness of breath</li> <li>• Pulmonary edema</li> <li>• Frothy secretions</li> </ul>	Phosgene (CG)—CAS #75-44-5; Odor: Newly mown hay Chloropicrin Chlorine
Blood agents	Attack circulatory system Have rapid onset	<ul style="list-style-type: none"> <li>• Occur immediately</li> <li>• Strong stimulated breathing</li> <li>• Loss of consciousness</li> <li>• Convulsions</li> <li>• Apnea</li> <li>• Headache</li> </ul>	Hydrogen Cyanide (AC)—CAS #74-90-8; Odor: Bitter almonds Cyanogen Chloride (CK)—CAS #506-77-4; Odor: Bitter almonds

## Ordering Information

### Detector Tubes

All tubes are sold in boxes of 10.

Part No.	Agent Types, Examples	Sensitivity
10007654	Nerve—Sarin, VX, GA, GD, etc.	1x10 <sup>-5</sup> mg/l
10007653	Blister—Mustard Gas	1x10 <sup>-3</sup> mg/l
10007650	Blister—Lewisite	1x10 <sup>-3</sup> mg/l
10007652	Blister—variety, including Mustard Gas	1x10 <sup>-3</sup> mg/l
10007651	Blood and Choking—CG, DP, AC, CK	5x10 <sup>-3</sup> mg/l

*Proudly Distributed By:*

### Detector Tube Pumps

Part No.	Description
487500	Kwik-Draw Deluxe Pump
488543	Kwik-Draw Basic Pump
696866	Gas Tester II-H Pump
655585	Toximeter II Pump



Offices and representatives in principal cities worldwide.  
 In U.S. call the Customer Service Center toll-free at 1-800-MSA-2222.  
 To reach MSA International, call (412) 967-3354 or fax (412) 967-3451.  
[www.MSAnet.com](http://www.MSAnet.com)

Corporate Headquarters: P.O. Box 426, Pittsburgh, PA 15230 USA.

Note: This Bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.