# Draeger Safety, Inc. - CDS Simultantest Set



## **GENERAL DESCRIPTION:**

The Dräger Civil Defense Set (CDS) utilizes colorimetric Dräger detector tubes and can measure eight chemical substances, and up to five simultaneously, including nerve, blood, lung, nose, and throat irritating agents.

#### **TECHNICAL DESCRIPTION:**

When air samples are pumped into the tubes, the chemicals in the sample react with the chemicals in the tubes and change color, alerting the user of the presence of the targeted gases in the air.



## **CONTACT INFORMATION**

Draeger Safety, Inc. 101 Technology Dr. Pittsburgh, PA 15275

### COST

- \$500/system
- \$65/analysis

## Final tier assignment is based on overall product score. Top Tier Second Tier Third Tier Generation Fourth Tier 🛛 🔵 Bottom Tier RANKINGS **Biological** Chemical Radiological **FIELD USE** N/A N/A System MOBILE N/A N/A Laboratory DIAGNOSTIC N/A N/A Laboratory **ANALYTICAL** N/A N/A Laboratory

## **Survey Source**

**Tier Selection** 

Vendor Supplied Information

# **Scoring Analysis**

System scores are compared across the four scenarios and ranked from highest to lowest.



## **Impact Chart**

The Impact Chart is a spider graph representing specific categories and designed to give the reader a visual depiction of how a particular system is expected to operate across the four different scenarios. The score for each of the seven categories is presented as the percentage of the total possible score. Higher category scores extend the spokes of a graphic toward the outer edge of the chart. The area graphed for each of the four scenarios relates to how well the system performed in that scenario. Graphics for each of the four scenarios are super-imposed for ease of comparison.



# **Evaluation Criteria**

### Throughput:

- Between 2 and 15 minutes for detection
- 1 sample, <10 tests/sample per run</li>
- Less than 32 samples every 2 hours
- The system or device is currently semi-automated
- Device or system is designed for a single use
- 0-1 solutions, buffer, eluents, and/or reagents
- 1 component
- Less than 5 minutes is required for set-up
- 1-2 steps are required for detection

### Logistics:

- Very brief (minutes-hours) training and minimal technical skills
- Approximately the size of a soda can
- Less than 1 kg
- This system is not capable of transmitting data
- 4-8 hours battery life



### **Operations:**

- Can be used from 4°C to 37°C
- Components must be stored at 4°C
- Device must be used in a temperature stable, dry environment for optimum performance
- Between 1 to 3 years shelf life
- Results cannot be viewed in real-time
- The system is not capable of autonomy
- The system does not employ any software
- The system hardware is closed and not available for modification

### Detection:

- Possible the system could receive 510K clearance, no current efforts at this time
- Possible the system could receive FDA approval, no current efforts at this time
- This system does not test liquids
- Good specificity. System has a consistently low level of false alarms (2-5%)
- > 1x10<sup>-3</sup> mg/m<sup>3</sup>
- System currently can identify aerosolized chemical agent
- Possible system could be adapted to identify liquid chemical agent