



DetectaChem

Accuracy, Mobility and Reliability

SeekerTM

Models: MDUTM, XDUTM, DDUTM

User Manual



www.DetectaChem.com

Made in the USA



WARNING!



EXPLOSIVES ARE EXTREMELY DANGEROUS AND CAN CAUSE SIGNIFICANT INJURY OR DEATH. THE DETECTION OF EXPLOSIVES AND/OR DRUGS INVOLVES MULTIPLE FACTORS. DETECTACHEM ACCEPTS NO RESPONSIBILITY FOR ANY RELIANCE UPON THE RESULT FROM OR USE OF A SCREENING TEST. THE BURDEN OF ANY CONSEQUENCES OF A DETECTION OR LACK OF DETECTION OF DRUGS OR EXPLOSIVES RESTS WITH THE USER. THE USER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THIS PRODUCT FOR HIS OR HER INTENDED USE. THE SALE OF THIS PRODUCT BY DETECTACHEM DOES NOT CONSTITUTE ENDORSEMENT OR IN ANY WAY SUGGEST THAT THE USER HAS THE APPROPRIATE SKILLS OR EXPERIENCE TO USE THE PRODUCT PROVIDED.

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May 2014 Part number UM-Seeker-Rev7.0

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Seeker

The Seeker Models



Seeker MDU
Explosive and Drug
Detection



Seeker XDU
Explosive Detection



Seeker DDU
Drug Detection

Seeker

Specifications

Size and Weight	5.9"x4.7"x1.2", 20 oz.
Environmental Requirements	Operating temperature: -4° to +122°F (-20° to +50°C)
Battery	Removable and rechargeable Li-ion 7.4V 2000mAh Battery; AA optional
Display	3.5" color LCD, 320 x 240 transfective display
Detection	Automated Colorimetric; Explosives and Drugs- Bulk and Trace
Swipe Sampling Applications	People, Hands, Fingers, Skin, Vehicles, Packages, Bags, Cargo, Containers, Glass, Plastic, Metal, Wood, Cement, Rubber, Fabric, plus much more.
Warranty	1 year parts and labor (extended plans available)

DetectaChem LLC
710 N. Post Oak Road
Suite 103
Houston, Texas
77024

1-855-5-SEEKER
(1-855-573-3537)

Sales: sales@detectachem.com
Service: service@detectachem.com
www.DetectaChem.com

Seeker

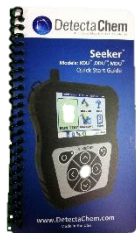
The Seeker kit includes the following:



Seeker Kit



Seeker



User Guide



Swipe-Cards



USB cord



International
Voltage
Adapters



12V power
cord/charger



A/C power
cord/charger

SD Card



Seeker

DetectaChem offers the following
Optional Accessories:



MOLLE Seeker Pouch



Seeker Case

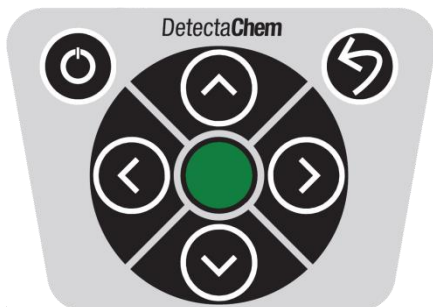


To purchase contact
Sales@DetectaChem.com

www.DetectaChem.com

Seeker

Seeker keypad:



Power On/Off



Scroll Up



Scroll Down



Scroll Right



Scroll Left



Go Back/Exit



Select/Go/Enter

Seeker

Seeker features:



Seeker

Seeker features:

Left Side View



USB Port

Right Side View



Charger Port

Crusher

Bottom View



SD Card Slot

Seeker

Removal of Boot and Battery:

Note:
Under normal use, this procedure will not be
needed



Back view with
Boot removed



Battery Cover

To remove boot,
peel off from the
bottom. To replace
start on the top by
putting the GPS
antenna through
hole in boot.



Lithium Ion Rechargeable
Battery

Detection Swipe-Cards

The sample swipe-card is the tool that allows the user to physically collect a sample and is also the delivery mechanism for the colorimetric reagents required for detection.

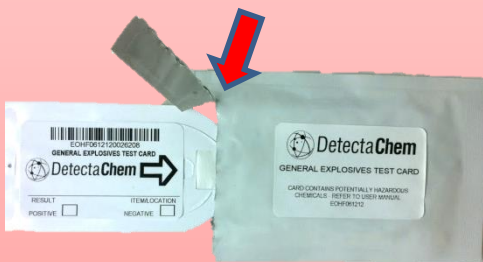


Detection Swipe-Cards

The sample swipe-cards are individually packaged and sealed to keep light and contamination out.



Remove the swipe-card by tearing bag at perforation.



Swipe-Cards should be stored in a cool dark place.

Detection Swipe-Cards

Swipe-Card Warnings



DetectaChem

GENERAL EXPLOSIVES TEST CARD

CARD CONTAINS POTENTIALLY HAZARDOUS
CHEMICALS - REFER TO USER MANUAL
CARD EXPIRES - March 25, 2015 - EOHH



DetectaChem

COCAINE TEST CARD

CARD CONTAINS POTENTIALLY HAZARDOUS
CHEMICALS - REFER TO USER MANUAL
CARD EXPIRES - March 25, 2015 - DOCB



DetectaChem

OPIATES TEST CARD

CAUTION: "CONTAINS STRONG ACID."
REFER TO USER MANUAL FOR INSTRUCTIONS
CARD EXPIRES - March 25, 2015 - DOHB



DetectaChem

KETAMINE TEST CARD

CARD CONTAINS POTENTIALLY HAZARDOUS
CHEMICALS - REFER TO USER MANUAL
CARD EXPIRES - March 25, 2015 - DOKB



DetectaChem

METH / MDMA TEST CARD

CARD CONTAINS POTENTIALLY HAZARDOUS
CHEMICALS - REFER TO USER MANUAL
CARD EXPIRES - March 25, 2015 - DOMB



DetectaChem

MARIJUANA / THC TEST CARD

CAUTION: "CONTAINS STRONG ACID."
REFER TO USER MANUAL FOR INSTRUCTIONS
CARD EXPIRES - March 25, 2015 - DOTB



Swipe-Card Warnings



- DO NOT TOUCH THE CARD PAD AFTER USE
- DO NOT DIRECTLY INHALE VAPORS EMITTED FROM CARD DURING OR AFTER A TEST
- DO NOT PLACE CARD NEAR FLAME
- DISPOSE OF CARD PROPERLY AFTER TEST
- KEEP OUT OF REACH OF CHILDREN

Detection Swipe-Cards

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Sampling

Correct sampling is critical for accurate test results. In order to perform a credible test, particles from a test surface must be collected on the collection pad.

Hold swipe-card with index finger directly behind collection pad, grip the edges with thumb and remaining fingers.



Sampling



Make direct contact with surface or substance to collect particles onto the collection pad.

When sampling a visible substance, make sure to make direct contact between the substance and collection pad.



Sampling

When sampling for trace detection, make sure to sample all suspect surfaces completely.

Hold Swipe-Card with index finger directly behind collection pad.



Apply firm pressure while sampling a surface



Rotate the swipe-card 45° left and right as you swipe



Make sure to rotate at least twice



Running a Test

1

Power On by pressing the Power On/Off button 

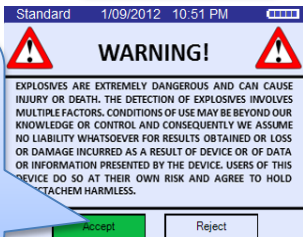


Tip:

The Seeker™ will automatically check itself upon start up.

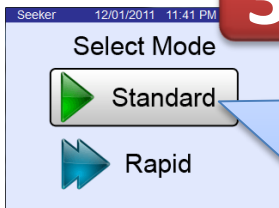
2

Read the warning. To move forward, accept by using the directional keypad to highlight selection and press Select button 



3

Use the up/down buttons to select mode.
Standard = Normal Test (recommended)
Rapid = Accelerated Test



Running a Test

1

Using directional keypad, highlight over Run Test and press select button

Tip:

Be sure to follow on-screen instructions

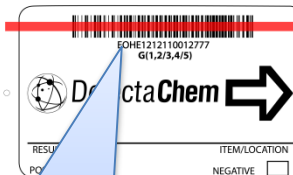


Press the select button to scan the barcode of the swipe-card being tested.

Tip:

Hold swipe-card 3-8 inches from top of the Seeker™ when scanning barcode

2



When scanning, make sure that the red scanner beam extends past both sides of the barcode as shown. You will hear an audible beep once the barcode is read.

Tip:

Increasing the distance between the swipe-card and the top of the Seeker™ will widen $\longleftrightarrow$ the scanner beam.

Running a Test

3



Once the barcode is scanned, the type of detection swipe-card will be displayed



Insert swipe-card with pad facing user and arrow pointing down.

Insert until swipe-card stops. ($\frac{1}{2}$ inch)/ 14mm) of card will protrude when inserted properly.



4

Press the select button  after swipe-card is inserted



Tip:
Be sure to follow on-screen instructions

Running a Test

Standard 1/09/2012 10:51 PM

CALIBRATION IN PROGRESS

WAIT for Crush Notification

Once the select button has been pressed, the Seeker™ will automatically self calibrate. Do Not crush the swipe-card until prompted by the onscreen instructions

Tip:

Be sure to hold Seeker™ upright during test.

5

11/29/2011 05:26 PM

CRUSH CARD



AND HOLD UPRIGHT

Follow on-screen instruction. Hold Seeker™ upright. Crush card by grasping Seeker with both hands. Firmly and quickly squeeze and release hammer to crush card. This will automatically start the test.

Squeeze and release the top of crusher



Pivot point

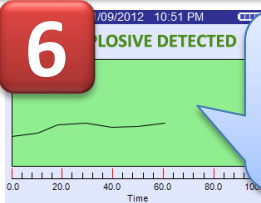


Tip:

Squeeze on finger outlines marked on the crusher

Running a Test

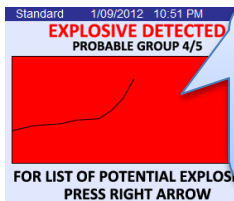
6



The Seeker™ test is fully automated. The screen will be green as long as no explosive/drug is detected on collection pad.



A yellow screen indicates the possible detection of an explosive/drug. If the test ends in yellow it is recommended that a new sample be collected and the test be repeated.



A red screen indicates the detection of an explosive/drug. The Seeker™ will give on-screen prompts giving further details.

7

Remove the swipe-card and retain if needed. The card can be placed in the original card bag and saved by the user.

8

Note:

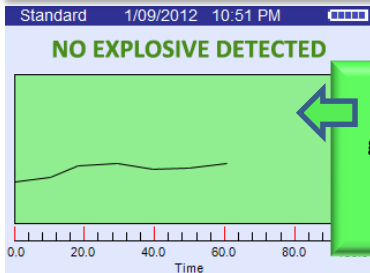
The Seeker™ will log and store all test results automatically.



At this point the test is complete. Press the go back button  to return to the home screen. The Seeker™ is now ready for another test.

Results

Once the test is complete, the Seeker will display the result on the LCD screen.



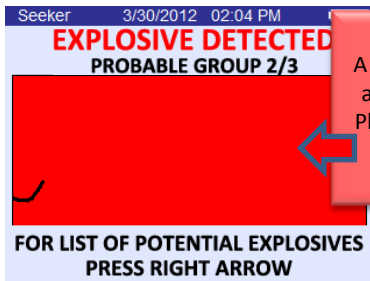
Green Screen:

The screen will be green as long as no explosive/drug is detected on the collection pad.



Yellow Screen:

A yellow screen indicates the possible detection of an explosive/drug. If the test ends in yellow it is recommended that a new sample be collected with a new swipe-card and the test be repeated.



Red Screen:

A red screen indicates a positive detection. Please refer to results on the screen for more information.

Results

General Screening Explosives Swipe-Card: G(1,2/3,4/5)

Group 1 (Nitroaromatics)

- Ex. TNT, TNB, DNT, DNB, Tetryl

Group 2 (Nitramines & Nitrate Esters)

- Ex. HMX, RDX, PETN, Nitroglycerin, EGDN, Pyrodex, Gunpowder, Semtex

Group 3 (Inorganic Nitrates)

- Ex. Ammonium Nitrate, Urea Nitrate

Group 4 (Chlorates)

- Ex. Sodium Chlorate, Potassium Chlorate

Group 5 (Peroxides)

- Ex. TATP, HMTD

Plus thousands of derivatives, combinations, and variants

Ammonium Detection Swipe-Card: Ammonium

Urea Nitrate Detection Swipe-Card: Urea Nitrate

Perchlorate Detection Swipe-Card:

- Ex. Potassium Perchlorate, Ammonium Perchlorate

General Screening Drugs: Opiates Detection Swipe-Card

- Ex. Heroin, Morphine, Codeine

Cocaine Detection Swipe-Card: Cocaine

Meth Detection Swipe-Card: Meth, MDMA, Ecstasy

THC Detection Swipe-Card: THC, Marijuana, Hashish

Ketamine Detection Swipe-Card: Ketamine

For the most current list visit: www.DetectaChem.com

Menus

Home Screen

- Run Test
- Results
- Help
- SD Card
- Setup

Use the keypad to
scroll between
menu items



Run Test

- Run Test
 - Follow on screen instructions

Results

- Most recent
 - Displays most recent test data
 - ❖ Scroll Left and Right
 - From Barcode
 - ❖ Scan barcode on swipe-card to view results

Help

- Quick start Guide (*varies by model)
 - Pictorial guide
 - ❖ Scroll Right and Left
- Explosive Definitions*
 - Group 1
 - Group 2/3
 - Group 4/5
- Drug Definitions*
 - Cocaine Test
 - Ketamine Test
 - Marijuana / THC Test
 - Meth / MDMA Test
 - Opiates Test

Menus

SDCard

- Update SEEKER
 - Press green button to update via SD Card file
 - ❖ Select (Yes) when prompted
- Upload Results
 - ❖ This will upload all results that are stored in the Seeker's internal memory to the SD card
- Erase SD
 - Confirm Erase of SD Card?
 - (Yes) to permanently erase SD Card
 - (No) to go back

Setup

- Status
 - View only display
 - ❖ Gives unit specific data including Serial Number and Software Version
- Options
 - Set Language
 - Language Menu
 - Arabic
 - English
 - Indonesian
 - Polish
 - Simplified Chinese
 - Spanish
 - Thai
 - Traditional Chinese
 - Vietnamese
 - ❖ Additional Languages

Menus

Setup (Continued)

- Enable or Disable Beep
 - ❖ Pressing the green enter button will disable or enable the beep
- Shutdown Timer
 - Default is 30 minutes.
 - Press up/down to adjust
 - Press green button to accept or back to exit
- Adjust Brightness Level
 - Normal- Recommended for Daytime use
 - Dim- Recommended for Nighttime use
- GPS Live Data
 - ❖ Displays real-time GPS data when signal is available
- Admin
 - Erase Memory
 - Confirm Erase
 - (Yes) will permanently delete all test data stored on the Seeker
 - ❖ It is recommended that you save test results to SD card or PC prior to erasing
 - (No) will return to prior menu
 - Test Heater
 - Pressing Enter will run a heater test
 - Press Enter to Exit
 - UTC Offset
 - ❖ UTC- Coordinated Universal Time
 - Adjust to local time

Tips/Troubleshooting

Tips:

- ❖ How can I tell when the Detection Swipe-Card I want to run was manufactured?
 - ✓ Answer: The expiration date can be found on the card bag label. "CARD EXPIRES – Month Day, Year"
- ❖ Does the Seeker need manual calibration?
 - ✓ Answer: The Seeker automatically calibrates prior to each test and there is no manual calibration required.
- ❖ How many tests can be run with each detection swipe-card?
 - ✓ Answer: Each swipe-card can be used one time.
- ❖ How can I view examples of different explosives that are in each group?
 - ✓ Answer: After a positive detection, the user can press the Right Arrow key to view a glossary.
 - ✓ Answer: The user can manually view the glossary at anytime by navigating to the Help Menu then selecting Explosive Definitions and selecting the Group.
- ❖ Does the Seeker need cleaning after a positive result?
 - ✓ Answer: The Seeker does not need to be cleaned after a positive result. To verify, the user can run a blank card to ensure a No Detection result.
- ❖ How long does the Seeker take to fully charge?
 - ✓ Answer: 2.5 Hours
- ❖ How can I tell if the Seeker is charging?
 - ✓ Answer: The battery level indicator located in the top right corner of the display screen will show a lightning bolt when charging.

Tips/Troubleshooting

Tips:

- ❖ What is the difference between Standard and Rapid Test?
 - ✓ Answer: Standard test gives maximum detectability and the lowest levels of detection. Rapid mode is a shortened test to be used when testing the lowest level of sensitivity is not necessary.
- ❖ How can I update the Software?
 - ✓ Answer: Contact your local reseller or DetectaChem for the latest updates and instructions for your particular model.
- ❖ Is there a method to view the results on a computer and print results?
 - ✓ Answer: Yes, in order to view the results on a computer, the user must download and install the DetectaChem Seeker Results Viewer. For instructions please contact your local reseller or DetectaChem directly.

Troubleshooting:

- ❖ Error: SD Card Not Found
 - ✓ Solution: Insert an SD Card
 - ✓ Solution: Remove and reinsert SD Card
- ❖ Error: Seeker will not update from SD Card
 - ✓ Solution: Contact Reseller or DetectaChem for latest update
- ❖ Error: Results are displaying incorrect time
 - ✓ Solution: Set the Seeker to the local time (See Menus-Setup-Admin-UTC Offset)

Tips/Troubleshooting

Troubleshooting:

- ❖ Error: No GPS data
 - ✓ Solution: Move to an outdoor location that has a clear and visible view of the sky. Wait until the satellite icon on the bottom of the home screen shows a signal and turns from grey to colored
- ❖ Error: Seeker will not read the barcode on a swipe-card
 - ✓ Solution: Increase the distance between the Seeker barcode scanner and the barcode on the swipe-card.
- ❖ Error: Seeker display reads "Please Hold Upright" when running a test
 - ✓ Solution: Be sure to hold the Seeker upright while testing. If the Seeker is being held upright and the screen still shows a "Please Hold Upright" message then please contact your reseller or DetectaChem for instructions.
- ❖ Error: "Card Too Old" message appears when the Detection swipe-card is scanned
 - ✓ Solution: The swipe-card has expired. Contact your local reseller or DetectaChem to order new swipe-cards.
- ❖ Error: Card Removed Early
 - ✓ Solution: Be sure that the Seeker is held upright during testing, the swipe-card is firmly inserted into the Seeker, and that the test is complete before removing the swipe-card.
- ❖ Error: Card Too Dirty
 - ✓ Solution: The sample surface was dirty and the swipe-card picked up an excessive amount of the dirt. Take a new sample with a new swipe-card and try again.

Cleaning/Maintenance

To remove boot, peel off from the bottom.
To replace start on the top by putting the
GPS antenna through hole in boot.



Battery Cover



Lithium Ion
Rechargeable
Battery

Cleaning/Maintenance



Supplies Needed:

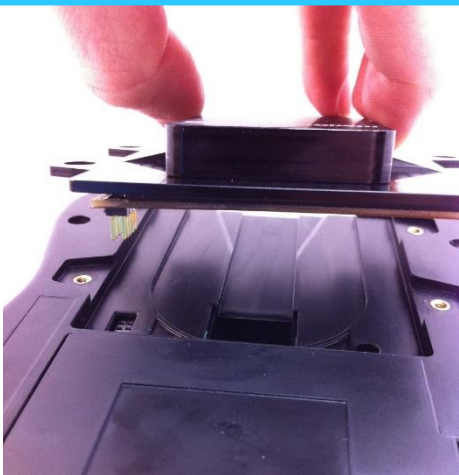
1. Seeker
2. Isopropyl Alcohol (IPA)
"Rubbing Alcohol"
3. Flathead screw driver
4. Cotton Swab(s)

With the Seeker OFF and boot removed, use a flathead screwdriver to remove the 4 screws holding the back crusher assembly to the plastic shell.



Cleaning/Maintenance

Remove back crusher assembly by grasping hammer and pulling straight up.



Be careful not to damage the heater connection pins during removal.

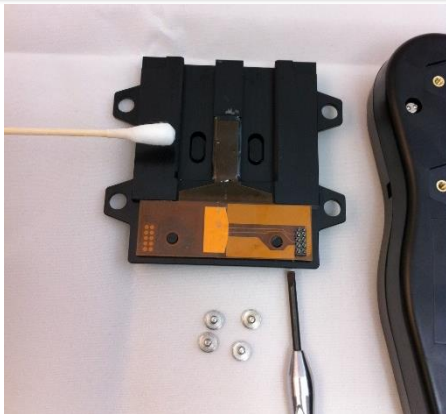


Cleaning/Maintenance

Wet the end of a cotton swab with IPA and clean all surfaces while avoiding the optics cavity and optics. Perform a visual inspection of the optics cavity to ensure there are no large foreign objects and carefully remove if needed.



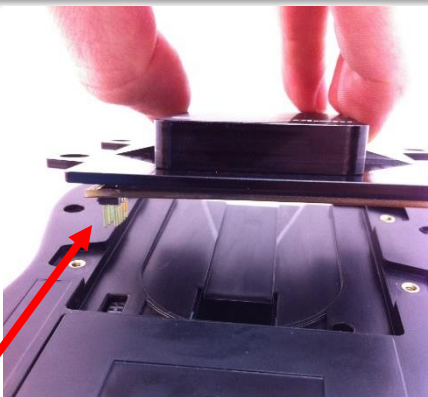
Cleaning/Maintenance



Wet the end of a cotton swab with IPA and clean all surfaces of the crusher assembly. Be sure not to damage the heater connection pins.



Cleaning/Maintenance



Carefully align the crusher assembly and lower into place making sure that the heater connection pins are not damaged during this process.

Using a flathead screwdriver, re-attach the crusher assembly to the plastic case. Do not over tighten.

Once reassembled, reinstall boot and power the Seeker ON. During the initial boot stage the Seeker will check to make sure heater is properly working.



Limited Warranty

LIMITED WARRANTY

This DetectaChem product is warranted to be free from defects in materials or workmanship for one year from the date of purchase. Within this period, DetectaChem will, at its sole option, repair or replace any components that fail in normal use. Such repairs or replacement will be made at no charge to the customer for parts or labor, provided that the customer shall be responsible for any transportation cost. This warranty does not cover failures due to abuse, misuse, accident, or unauthorized alteration or repairs.

This product is intended to be used only as a detection aid and must not be used for any other purpose. DetectaChem makes no warranty as to the accuracy or completeness of this product.

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IN NO EVENT SHALL DETECTACHEM BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM THE USE, MISUSE, OR INABILITY TO USE THIS PRODUCT OR FROM DEFECTS IN THE PRODUCT. SOME STATES DO NOT ALLOW THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

DetectaChem retains the exclusive right to repair or replace the unit or software or offer a full refund of the purchase price at its sole discretion. SUCH REMEDY SHALL BE YOUR SOLE AND EXCLUSIVE REMEDY FOR ANY BREACH OF WARRANTY.

To obtain warranty service, contact your local DetectaChem authorized dealer, authorized representative, or call DetectaChem Product Support for shipping and return instructions. Securely pack the unit and a copy of the original sales receipt, which is required as the proof of purchase for warranty repairs. Send the unit, freight charges prepaid, to any DetectaChem warranty service division.

International Purchases: A separate warranty is provided by international distributors for units purchased outside the United States. This warranty is provided by the local in-country distributor and this distributor provides local service for your unit. Distributor warranties are only valid in the area of intended distribution. Units purchased in the United States must be returned to the DetectaChem service center in the United States.

Supplemental

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Contact Information

DetectaChem LLC

710 N. Post Oak Road

Suite 103

Houston, Texas

77024

1-855-5-SEEKER

(1-855-573-3537)

Sales: sales@detectachem.com

Service: service@detectachem.com

www.DetectaChem.com

Made in the
USA

www.DetectaChem.com

