



NIK System of Narcotics Identification  
**Self Guided**  
**Basic Competency Course**

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# Field Testing

- The NIK System of narcotics identification was developed as a means to rapidly screen and presumptively identify illicit drugs in the field
- The NIK system utilizes a series of colorimetric testing chemicals to rapidly classify and presumptively identify unknown illicit compounds
- This procedure is commonly known as field testing and is not intended as a substitute for laboratory testing
- The field test is the last component of the probable cause chain in presumptively identifying drugs
- The chain relies on the officer's training and experience as well as physical characteristics of the suspected substances
- This system is not infallible; it is designed to give the investigating officer a solid basis to the results to aid in the investigation



NIK Field testing is a **PRESUMPTIVE** test used to aid the officer in developing probable cause to support the apprehension of suspects and confiscation of drugs of abuse.

Using a NIK test in the field is only part of the process necessary to make a seizure. Employing “best police practices” is always a must; the user/officer must have strong investigative information before conducting a field drug test kit. Utilizing environmental markers (activity, surroundings, actions, etc.) is necessary to build probable cause for testing. Simply approaching someone and doing a test will probably not stand up in court.

It is also important to understand that there are proper procedures involved in the actual use of the test kits. Deviating from these protocols may give an inconclusive answer or may put the officer or observers at risk.



# Course Overview

- Objectives
  - Properly utilize NIK Field Test Kits
  - Rapidly screen and presumptively identify most common drugs of abuse
  - Properly utilize the NIK Polytesting System
- Training Methods
  - Power Point Presentation
    - Aid student understanding of key principles of presumptive field testing and use of NIK drug test kits
  - Competency Examination
    - Tests student comprehension of instructional material
    - Minimum passing score of 80% is required to receive course completion certificate



# Polytesting System



# The NIK Polytesting System

- The Polytesting System is designed to assist the investigator in the presumptive identification of illicit substances
- When used properly, the Polytesting System helps eliminate most compounds
- A system that subjects a substance to a series of progressively discriminating screening tests
  - If all tests indicate a positive reaction for a particular substance, there is a high degree of certainty that the substance is what the system indicates it to be
  - The probability of a presumptive identification is greatly increased with the greater number of tests used in the sequence
  - In other words, two tests are better than one, three tests are better than two, etc.

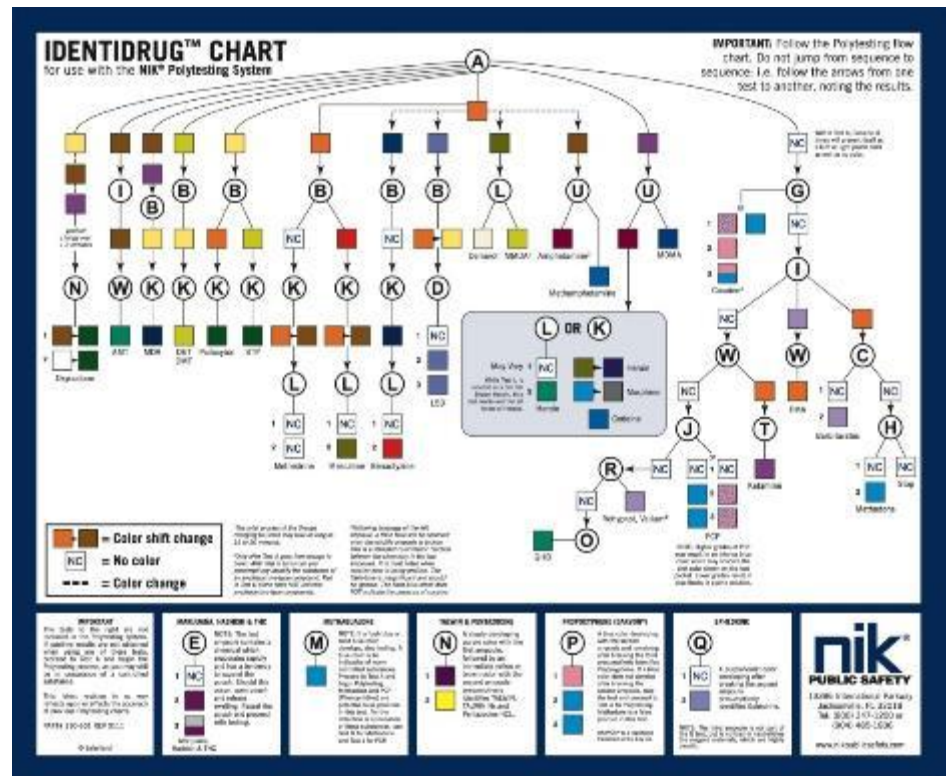


# Benefits of The Polytesting System

- Series of predictable color changes that give positive or negative color results as to the presumptive identification of the substance
- Minimizes the chances of false indications
- Gives a starting and stopping point for testing
- Multiplicity of tests for yield higher degree of accuracy (two tests are better than one, three better than two, etc.)

# The NIK Polytesting System

- The chart is comprised of a series of one-way streets with a couple of bifurcations. Once a lane choice has been made there is no deviation from that one-way street.
- One positive color indication will move to the next in line. Moving from line to line is not an acceptable interpretation of the testing chart
- The tests along the bottom are not included in the Polytesting System. Test A may be run on them, but the result will be negative. If any of these drugs are suspected direct testing can be conducted.



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# Initiating the Polytesting System



















When testing unknown substances, the Polytesting System should always be initiated with Test A

- The result of Test A is then presumptively confirmed by the sequential test or tests as indicated in the Color Polytesting Chart
- Test A is the general screening test that provides up to 14 answers (or avenues) for presumptive identification
- It may take several different tests to presumptively identify a particular substance
- Never rely on the results of Test A alone, always continue through the sequence provided by the Polytesting System



# Sample Test Sequences

## Polytesting System

- **Heroin** – Test A  - Test U  - Test K  to  - Test L 
  - **Meth** – Test A  to  - Test U 
  - **Ecstasy** – Test A  - Test U 
  - **LSD** – Test A  to  -Test B  to  -Test D 
  - **Psilocybin** – Test A  - Test B  - Test K 
- When conducting multiple tests, all tests must match the colors for the results to presumptively identify the substance
  - Proper notes should be taken that record all of the noted color changes (per ampoule) and how long it took to make the color change (these notes will become the record of the test as the tests are not designed for long term storage). Photographing the color results is also an acceptable form of note taking.



# Required Materials

## The Polytesting System

Certain items are necessary to properly employ the Polytesting System

- A Color Polytesting Chart should always be available for consultation and confirmation of a color reaction in order to correctly interpret the results of the color reactions of the tests
- A variety of test kits are recommended to test for the various substances and drugs that may be encountered; leaving a test out of the sequence will not allow for the proper evaluation of the substance
- Adequate amount of substance to complete the necessary tests
  - If a small amount is all that is available, then the Polytesting System should not be initiated, but the substance should be submitted directly to the laboratory for analysis. It is better to have a positive confirmatory test than it is to have a positive presumptive test

# Testing Capability

The NIK System can presumptively identify most common drugs of abuse:



Stimulants



Depressants  
(Narcotics)



Hallucinogens



Cannabis  
(Marijuana)



Club Drugs  
(GHB, MDMA-  
Ecstasy)

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# Colorimetric Testing



# Colorimetric Chemical Testing

- The NIK System employs chemical colorimetric testing for presumptive substance identification
- Each kit contains one or more chemical reagents and /or solvents that develops a particular color in the presence of a specific chemical functional group or bond
- A positive presumptive identification is presumed when a predicted color reaction occurs while following the recommended testing sequence



# Colorimetric Chemical Testing

- The NIK testing system utilizes the same chemical tests as found in crime laboratory chemical analysis sections throughout the world. Laboratories mix their chemicals in volume and do their tests in spot wells; the NIK system mixes the same chemicals and places them in ampoules to do the field testing in closed pouches
- A positive predictable color change is only a presumed positive result for the suspected compound: in no way should the test results be considered a confirmation of identification. Many man-made or natural chemicals could produce a positive indication for the presence of an illicit substance. In drug investigation situations, those compounds do not naturally present themselves in the investigation and are not generally addressed



# Colorimetric Chemical Testing

- For the colorimetric test to be of assistance to the investigation, the substance under investigation should resemble in form and packaging what the intended substance is suspected to be. If a substance looks suspect, in other words, doesn't resemble a narcotic or isn't typically packaged like a narcotic, then questions should arise as to the validity of substance
- It should be noted that all test results, positive or negative, should be confirmed by the crime laboratory
- The nature of the NIK testing system is multiplicity. The practice of two tests are better than one, three better than two, etc. give rise to a process of discrimination that narrows the possibilities of the results





# Components of a Test Kit

# Test Kits

- Each individual kit contains all the necessary chemicals to perform a specific test in pre-filled, hermetically sealed glass ampoules; the only necessary addition to the test is the introduction of the compound to be tested
- Individual tests are identified by an alphabetic symbol (A, B, C, D, etc.) and by the name of the substance that it tests (Cocaine, Heroin, Opiates, Methamphetamine, etc.)



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# Test Kits

- At no time should the pouches be disassembled and used; the ampoules are placed in protective harnesses for the protection of the officer and the chemicals are placed in the pouches for the protection of everyone
- Test kits generally have the names of the narcotics that they presumably identify. Some carry broader names that may test for more than one substance
- It is important to note that the test kits will not presumptively identify drug mixtures with one test. Since the tests are designed to test for only one chemical family, mixtures will require more than one test to indicate all of the drugs in a mixture. All positive reactions would be reported by the user.



# Components of Individual Test Pouches

- **Plastic Pouch:** used to house the test ampoules and protect the user from the chemicals and glass
- **Glass Ampoules:** used to house the chemicals in a safe and stable environment
- **Protective Harness:** used to house the ampoules and keep them in order for breakage; also used to protect the user from broken glass during testing
- **Color Standard:** predictable color result of most test results are printed on the outside of the pouch
- **Safety Clip:** used to keep the pouch closed before testing to keep contaminants out, and used during testing to keep used chemistry from coming in contact with the user
- **Loading Device:** used to draw proper amount of sample from testing material; also used to test liquids

# Test Kit Nomenclature

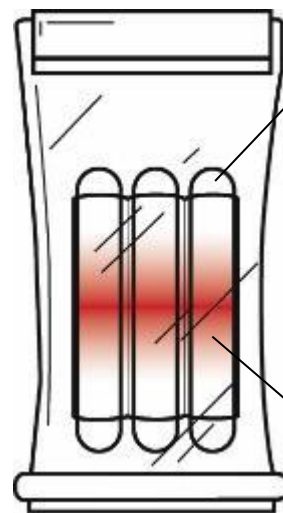


Safety Clip

Polyethylene  
(Plastic)  
Pouch

Color Standard  
(printed on  
pouch)

Substance  
Loading  
Device



Glass  
Ampoules  
(one to three)

Protective  
Harness

**Note: the red zone is where  
the ampoules must be  
broken, for safety reasons**

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# Safety



# Safety

- NIK tests are manufactured in safety pouches for a reason. Inside the tests are strong chemicals: acids, bases, alcohols and mixtures. Some of these chemicals can cause contact burns to the skin or may cause serious injury to the eyes or mucosal lining of the mouth and nose. For these reasons all precautions should be taken when using the tests
- It is highly recommended that the user wear gloves when conducting the tests. This will protect the user from any chemical burns and will also protect them from the compounds that they are testing. Today's drug mixtures threats are even a greater threat to health and safety
- The user should wear protective eyewear and the pouches should always be pointed away from the user's face and the faces of those standing around observing. In the event that a substance has a violent reaction to the chemicals in the test, the pouch could open and spew the contents toward surrounding personnel, resulting in injury

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# Safety

- When using the test, if pressure or heat build up inside the pouch, simply remove the safety clip from the top of the pouch and vent the pouch. Leave the pouch on a stable surface until it has cooled
- If the pouch swells rapidly, it is best to just let the pouch fall to ground and complete whatever reaction is taking place in the pouch
- If the test ruptures, there is no further testing that can be conducted with this pouch and it must be discarded and a new test pouch must be used. If it is necessary to continue with a new test, place the pouch in a zip top baggie and repeat testing. This will provide an added layer of safety for the officer
- If the pouch does not rupture and once the test has cooled, it is possible to continue conducting the test. If a color reaction is expected after the breakage of the ampoule that caused the reaction, it should be noted and if not present the testing can be discontinued





# Safety

- Ampoules must never be removed from the pouch nor used outside the pouch. All reactions must take place within the pouch
- Some test kits contain solvents and strong acids and can pose a danger upon physical contact:
  - If ingested: Seek immediate medical attention!
  - If contact is made with the skin: Wash thoroughly with soap and water and seek medical attention as necessary
  - If contact is made with the eyes: Flush thoroughly with water and seek immediate medical attention!
- Safety Data Sheets (SDS) are available from NIK Public Safety at [www.ForensicsSource.com](http://www.ForensicsSource.com)



# Testing



# Drug Testing 1-2-3

NIK field testing is a simple straight-forward process that requires a minimal amount of training and practice:

1. Add the substance to the test kit
2. Break the ampoules and agitate the pouch
3. Observe the color change reaction

# Step 1: Add the Substance to the Test Kit

- The officer selects a test or series of tests to conduct
- Small amounts of the substance are added to each test pouch used in the presumptive identification process
- Each pouch receives its own sample
- Once a sample is placed in a pouch and chemical testing is conducted, that sample is rendered useless for subsequent tests and a new sample must be drawn



## Step 2: Break Ampoules / Agitate Pouch

- The ampoules are always broken in the same prescribed manner, left to right, one at a time
- After each ampoule is broken, the pouch is gently agitated by flicking the bottom of the pouch to mix the contents. Do not shake the pouch to mix
- The mixture is agitated the same way each time



# Step 3: Read the Color Change Reaction

- Every test has a prescribed and predictable color change reaction that indicates the results of the test
- In the event that a predicated color reaction does not occur, the test must be reported as a presumptive negative





# Test Results

- All field test results, including NIK results are considered presumptive in nature (never confirmatory)
- Test results cannot be considered proof positive, conclusive, or evidentiary; results should always be used in conjunction with the police investigation
- In correctional facility applications, tests are used as determination of the substance, as the results are used in disciplinary procedures
- Presumptive test results can be considered a component of probable cause
- The test results are used in the determination of probable cause for arrest, detainment and seizure of suspected illicit substances. Never should the results, positive or negative, be the sole determining factor in the investigation
- No matter the results of the tests, the substance in question should always be forwarded to a forensic laboratory for analysis



# Types of Testing

The System employs two basic types of testing

- Apparent Compounds
  - Testing on apparent compounds (cocaine, marijuana, heroin) can be completed by going directly to the specific test to presumptively identify the compound
  - This approach is not recommended; however, the tests for some compounds are specific enough to allow direct testing
- Unknown Compounds
  - Testing on unknown compounds is achieved by utilizing the Polytesting system, always starting with Test A and progressing through the Polytesting chart until a result is achieved





# Testing Conditions

- Some color changes happen quickly and users should give the test their complete and undivided attention to the test
  - Most results occur within 15 seconds
  - Changes slower than that should be noted and considered in the determination of the results.
- When practical, field tests should be performed as close to room temperature as possible
  - Cold temperatures will tend to slow down test results
    - Since test results are pretty immediate, a slower change could be confusing if it is not understood that colder climates may affect the results.
  - Hot temperatures will tend to speed up test results
    - If color shifts are expected in the testing procedure, they could occur quicker and not be noticed if the user is distracted. If those color shifts are missed, an erroneous result may occur.
- Generally, small fluctuations of temperature will not effect the outcome of the testing
  - Short term exposure to heat will not affect the tests



# Testing Procedure

1. Classify the material to be tested
  - Determine the type of substance to be tested: pill, plant, liquid, powder)
2. Select the proper test
  - Determine if starting with Test A and Polytesting or using a direct result test
3. Determine the amount of substance to be tested
  - The Loading Device is always used; if the test results are too intense, a lesser amount of the substance would be used in a repeat of the test. Conversely, if the result is too weak, more sample should be used.
4. Perform the test
5. Interpret the results
  - Results should be noted as they occur (color sequence and time to react)
6. Dispose of the used test kit properly





## Step 2: Select The Proper Test

- **TEST A** – Unknown Substance (Polytesting System)
- **TEST A & U** – Methamphetamine
- **TEST A & U** – Ecstasy (MDMA)
- **TEST D** – LSD
- **TEST E** – Cannabis (Marijuana)
- **TEST G** – Cocaine or Crack
- **TEST L** – Heroin
- **TEST Q** – Ephedrine
- **TEST R** – Rohypnol/Valium

If based on your observations of the substance and the circumstances you encountered the substance, you can use the specific test for that drug. If you do not have a clue as to the identification of the substance, use the Polytesting System. Your department directives will dictate the method of testing needed

Methamphetamine and Ecstasy react similarly in Test U. To distinguish between the two drugs, Test A must be performed. Methamphetamine turns orange to brown very quickly (within 10-12 seconds) in Test A. Ecstasy turns almost black in Test A.

## Step 3: Determine Amount To Be Tested

- Always use the supplied Loading Device when placing powders into the pouch. The Loading Device has a small circle pressed on the end to be used as a measuring guide for the proper amount of sample
- Do not use common tools, knife, fingers or utensils to place the sample into the pouch (contaminants may corrupt the test results)
- Using personal knives may cause harm through accidental ingestion or puncture
- Generally a very small amount of substance is sufficient for testing
- Some kits are very sensitive, reacting with only 5 micrograms of material





## Step 3: Determine Amount To Be Tested (cont.)

- Be sure the substance settles to the bottom of the pouch before conducting the test
- After placing the proper amount sample in the pouch, gently tap the bottom of the pouch on a table or other surface to drive the all the substance to the bottom of the pouch. If the substance is distributed over the inside of the pouch the tests results may not be reliable
- The most common mistake made by officers is putting too large of a sample in the test kit
- If the test result is too weak, more substance should be added in a subsequent test. If it too strong, less quantity should be used

# Sample Size

- Placing too much sample in the test will render the test useless.
- Overloading the pouch may prevent the chemicals from mixing properly with the substance to produce results
- Correct results can be expected when placing the proper amount of sample in the kit



**Correct amount**



**Incorrect amount**  
(this has been done in the field)

## Step 4: Perform The Test

1. Place the substance in the pouch
2. Reseal and tap the sides ensuring that the substance falls to the bottom
3. With the written instructions facing you, and using the internal plastic protective harness, use your thumb and forefinger to gently break the ampoules
4. Do not squeeze the top or bottom of the ampoules as injury may occur
5. Always break the ampoules from left to right when multiple ampoules are present









## Step 4: Perform The Test (continued)

6. Do not double crush the ampoules
7. Liquid will fall from broken ampoule when the pouch is agitated
8. Ampoules are broken one at a time and agitation occurs after each ampoule, do not break all ampoules at one time
9. Gently agitate the pouch for about 15-30 seconds after breaking each ampoule by holding the pouch clip between the thumb and forefinger and gently flicking the bottom of the pouch with the other hand
10. Do not mix violently as the substance will disperse around the pouch.
11. After agitating, let the mixture settle to the bottom of the pouch and observe the color change.





# Step 5: Interpret The Results

- Before conducting the test, the user should consult the Polytesting chart to become familiar with the expected color change
- For test results, there are three important factors
  - First, the color that is produced. Is it the expected color, or something different? [The color  ]
  - Second, is color shift expected? If so, did it occur and in what timeframe? [The color change from  to  ]
  - Third, if color layering is expected, did it happen and did it happen correctly? [The location of the colors (layers)  ]
- An exact color match is **not** required
  - The value of the color may vary depending on the strength of the substance tested, but this cannot be quantified except in a laboratory
  - Cutting agents and other impurities may cause the hue to change.
  - Blue is blue, pink is pink and purple is purple, etc.



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## Step 6: Dispose Of The Used Test Kit

- Neutralizing the used test kits is the most dangerous part of using these kits
- When adding neutralizer to the test kits, do not reseal the pouch until after the effervescence has stopped
- Always follow departmental guidelines regarding the disposal of the used test kits.
- Used test kits should be disposed of in a responsible manner
- The kits may contain acids and reagents that could pose a danger
- Use of an Acid Neutralizer such as Test F or soda ash is recommended

**Use extreme caution when neutralizing.  
Some kits can generate enough heat to soften the pouch.**

## Step 6: Dispose Of The Used Test Kit

- Use Test F to neutralize chemistry in pouch
- Add a small amount of neutralizer to pouch
- Leave top open to vent heat and gas
- When pouch has cooled, replace clip and dispose safely



# Testing Liquids

- NIK tests are designed to test dosage sample of unknown substances. Dosage samples are generally powder, crystals, pills or capsules. When liquid samples are encountered do not introduce them directly into any test pouch (except Test O for GHB). All other tests require the liquid sample to be dried before testing.
- To sample a liquid:
  - Thoroughly wet the tip of the Loading Device or wet a 1/2"x1/2" piece of paper with the liquid
  - Allow it to air dry
  - Then insert into the proper test kit and remove the perforated tip
- The paper should be unscented and uncolored; do not use brown hand towels or newsprint
- It is not recommended to use cotton swabs as the cotton may react with some of the chemicals and cause a erroneous color reaction



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# Shelf Life and Storage



# Shelf Life & Storage Requirements

- NIK Test Kits have no expiration dates, except Test O which carries a 6-month shelf life, and when properly stored, have an indefinite shelf life
- To preclude breakdown of the chemicals, it is recommended that tests be used within five (5) years of purchase. In addition, it is recommended that the user not buy more than they can use in a period of one (1) year and that they rotate their stock as if the test were groceries (newest stock to the rear, oldest to the front). This will keep a supply of fresh chemicals available to the investigator at any time.
- NIK test chemical are manufactured to exacting conditions and packaged in the ampoules with an appropriate cover gas to ensure the longevity of the chemicals. Not all chemicals will remain in a mixed useful state forever. The proper storage of the chemicals will prolong any natural breakdown of the chemicals and give results for many years.



# Shelf Life & Storage Requirements

- The kits should be stored like basic office supplies
- Some tests are affected by exposure to direct light, whether it be incandescent or sunlight. This degradation by light is only facilitated by long term exposure, not by exposure during the testing process. Protect the tests from light, the tests should be kept in their original boxes or packaging. In addition, the tests should be stored at room temperature.
- Tests that are stored in car trunks or dashes will risk the chance of degradation. Prolonged exposure to high heat will cause the chemicals to break down and become useless. Short term exposure during the testing process will not cause the tests harm. However, when the day is done, the tests should be returned to the office for storage. Exposure to cold temperatures will not affect the composition of the chemicals in the ampoules.





# Examples of Common Tests

# Test A – General Screening

## Marquis Reagent

- Test contains 1 ampoule
- This test will turn a multitude of colors, depending on the compound being tested
- Typical results:
  - Amphetamine/methamphetamine: Orange to Brown (within 10-12 seconds)
  - MDMA or Opiates: Purple
  - LSD: Orange to Purple
  - Psilocybin (mushrooms): Yellow



Test A  
orange to brown  
(within 10-12 sec)

# Test E For Marijuana (THC)

## Duquenois Levine

- Test E contains 3 ampoules
  - 1st ampoule – No color change
  - 2nd ampoule – Purple ■
  - 3rd ampoule – Grayish ■ / Purple ■
- Test only the **leafy part of the plant** (do not use stems or seeds)
- Use 3-7 small fragments of leaves
- Agitate 1<sup>st</sup> ampoule for **60 seconds**



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# Test E For Marijuana (THC)

## Duquenois Levine

- After breaking the second ampoule and the purple color starts to develop, *immediately break the third ampoule*. This will halt the color development so that the purple color does not oversaturate the solution
- The upper layer color is not significant (other than it should be lighter than the bottom purple layer)
- Most marijuana today has significantly more THC in it than the marijuana found a few decades ago. When there is too much THC introduced to the chemistry, the layers will be light purple over dark purple; this is considered a positive result.

# Test G For Cocaine

## Scott Reagent Modified

- Test G contains 3 ampoules
  - 1st ampoule – Blue ■ or blue specks
  - 2nd ampoule – Pink ■
  - 3rd ampoule – Pink ■ / Blue ■
- All color changes are necessary for a presumptive positive indication.



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# Test G For Cocaine

## Scott Reagent Modified

- Note the color of the liquid or powder. A blue color should appear. Depending on the street mix of the powder/drug the liquid may not turn blue but will show on the particles
- A blue flash will appear when the second ampoule is broken. This a normal reaction for the test. The blue will dissipate and become pink
- In the third ampoule, the liquid will layer and show pink over blue

# Test G For Crack Cocaine

## Scott Reagent Modified

- Test G contains 3 ampoules
  - 1st ampoule – Blue Specks 
  - 2nd ampoule – Pink 
  - 3rd ampoule – Pink  / Blue 
- Generally only the actual crack particles themselves will turn blue
- Crack cocaine is not soluble and will remain in particle form in the solution



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# Test G For Crack Cocaine

## Scott Reagent Modified

- When sampling for testing, remove a small rock and pulverize. Do not use the residues from the package as they may just be binder and not contain any narcotic
- When the Cocaine test is used for Crack Cocaine, the liquid will remain pink and the pieces of Crack will turn blue because of the insolubility of the Crack Cocaine in the reagents
- The other ampoule results are the same



# Test L For Heroin

## Mecke Modified

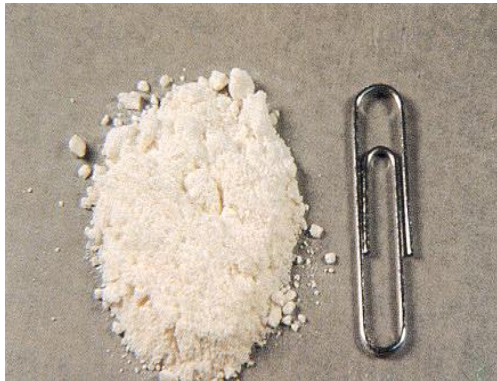
- The only acceptable result is Green in this test
- Test contains 2 ampoules
  - 1st ampoule – No color change
  - 2nd ampoule – Green ■



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# Heroin Sampling

## White



Use 1/8" tip of a loading device

## Brown



Use 10 granules

## Black Tar



Use sample the size of a period (.)

# Test U for Methamphetamine and MDMA (Ecstasy)

- Test U contains 3 ampoules
  - 1st ampoule – No color change
  - 2nd ampoule – No color change
  - 3rd ampoule – Dark Blue ■
- Test U is used for both Methamphetamine and MDMA (Ecstasy). To determine difference, you must use Test A.



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# Test U for Methamphetamine and MDMA (Ecstasy)

- The first two ampoules do not give a color reaction, but merely put the sample in the proper chemical order to produce a color reaction with the third ampoule.
- This test does not differentiate between MDMA and Methamphetamine. Test A must be used to provide that clarification. Test U tests for the presence of a chemical group called secondary amines. Both of these drugs fall into this chemical group. You may encounter other chemicals that are also in this group in the field. Test A is the only way to provide a better screening for the presence or non-presence of illicit drugs.

# Test U for Methamphetamine and MDMA (Ecstasy)

- It should also be noted that Test U will turn a burgundy color all by itself when the ampoules are broken with substance placed in the pouch. This is the nature of the chemicals.
- The logic to be used here is that Test A (if it shifts from Orange to Brown) tells us that the substance is presumptively an Amphetamine-type compound. Test U then tells us if there is an indication of Amphetamine (burgundy) or Methamphetamine (dark blue) present. By not turning dark blue and staying burgundy, this is considered a negative reaction for the presence of Methamphetamine and therefore, by default, it indicates Amphetamine.



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# Common Results for Test A













## Marquis Reagent

- These are some of the common results for Test A. By following the color reactions on the Polytesting Chart, you will be able to presumptively identify the substance encountered.
- Note the time frames indicated in some of the color shift reactions. These time frames are important to note. Reactions occurring outside of these time frames are to be considered a negative reaction and needs to indicate to the user that the testing should stop.
- It is important to note that your complete and undivided attention is needed to accurately interpret the results. Without that attention, erroneous results could occur and produce an improper interpretation resulting in improper detainment of a subject.



# Common Results for Test A

## Marquis Reagent

- Test A can identify many substances
  - **Heroin (Opiates)** – Purple 
  - **Amphetamine** – Orange  to Brown   
(color change in 10-12 seconds)
  - **Methamphetamine** – Orange  to Brown   
(color change in 10-12 seconds)
  - **Ecstasy (MDMA)** – Purple 
  - **Oxycontin** – Yellow  to Brown  to Purple   
(color change in 1-3 minutes)
  - **LSD** – Orange  to Purple 
  - **Psilocybin** – Yellow 



# Test K Special Opiates Test

- Opiates
  - **Heroin** – Green ■ to Purple ■
  - **Morphine** – Blue Green ■ to Gray ■
  - **Codeine** – Stable Blue ■
- Other Substances
  - **Psilocybin** – Green ■





# Available Tests

**Test A** – Opium Alkaloids, Heroin & Amphetamine type compounds

**Test B** – Secondary screening for Opiates, Amphetamine type compounds & other substances

**Test C** – Barbiturates

**Test D** – LSD

**Test E** – Marijuana, Hashish & Hash Oil

**Test F** – Acid Neutralizer

**Test G** – Cocaine, Crack & Free Base

**Test H** – Methadone

**Test I** – PMA, Ketamine, Barbiturates & Methadone

**Test J** – PCP (Phencyclidine)

**Test K** – Opiates

**Test L** – Heroin

**Test M** – Methaqualone

**Test N** – Pentazocine/Talwin

**Test O** – GHB

**Test P** – Propoxyphene

**Test Q** – Ephedrine

**Test R** – Valium, Rohypnol & Methcathidone

**Test T** – Ketamine

**Test U** – Methamphetamine

**Test W** – Amphetamines & Methadone



# Review



# Review: The Polytesting System

- A procedure whereby a substance is subjected to a series of progressively discriminating screening tests
- Polytesting provides more feedback to help decrease the chances of false indications
- All tests must indicate a positive, predictable color result
- Progressive reinforcement; two tests are better than one, three tests are better than two, etc.
- The Polytesting System is always initiated with Test A



# Review: Colorimetric Chemical Testing

- The NIK System employs Colorimetric Chemical Comparison for substance identification
- All the necessary chemicals are included in each pouch; the only thing needed to perform the test is the suspected substance
- Each kit contains one or more chemical agents which develops into a predicted color in the presence of a specific substance



# Review: Testing Capability

- The NIK System presumptively identifies most common drugs of abuse
- They do not provide a conclusive result as to the content of the substance being tested
- These tests are not foolproof and are not designed to presumptively identify all drugs of abuse, only the common ones



# Review: Safety Issues

- Some test kits contain solvents and strong acids and can pose a danger upon physical contact (even the small amount in the kits can be hazardous in certain situations)
- All general safety precautions must be taken to prevent injury to the user and observers.
- If ingested: seek immediate medical attention!
- If contact is made with the skin: wash thoroughly and seek medical attention as necessary
- If contact is made with the eyes: flush thoroughly with water and seek immediate medical attention!
- Wear gloves when handling test kits and suspected drugs



# Review: Types of Testing

The System employs two basic types of testing

- Apparent testing can take place if the user has a high certainty of what is being tested; if the identity of the substance is apparent, use the specific test for that particular substance
- Non-apparent testing always starts with Test A and continues as prescribed in the Polytesting Chart; if the identity of the substance is not apparent, initiate the Polytesting System with Test A



# Review: Testing Procedure

1. **Classify the material to be tested** (Powder, leaf material, etc.)
2. **Select the proper test kit** (based on apparent or non-apparent testing sequence)
3. **Select the amount to be tested** (loading the test pouch with the proper amount of sample)
4. **Perform the test** (by breaking the ampoules from left to right)
5. **Interpret the test results** (closely watching the test pouch, observing any color reactions that may take place, and noting the timing of the color changes)
6. **Dispose of the used test kit** (following your agency's protocols)





# Review: Test Results

- All field test results, including NIK results are presumptive in nature (excluding some correctional applications)
- Substances, whether the test result is positive or negative, should always be submitted to a forensic laboratory for qualitative analysis as protocols dictate
- Test results are for investigative and probable cause purposes only



# Review: Testing Liquids

- NIK Test Kits were not designed to have liquids dropped directly into them (except Test O); All other tests must have the liquid dried on a clean piece of tissue or paper
- To sample a liquid, thoroughly wet the tip of the substance loading device, or wet a ½ inch by ½ inch piece of paper with the substance, allow to air dry, and then drop it into the proper test kit for testing
- The paper should be unscented and uncolored; do not use brown hand towels or newspaper

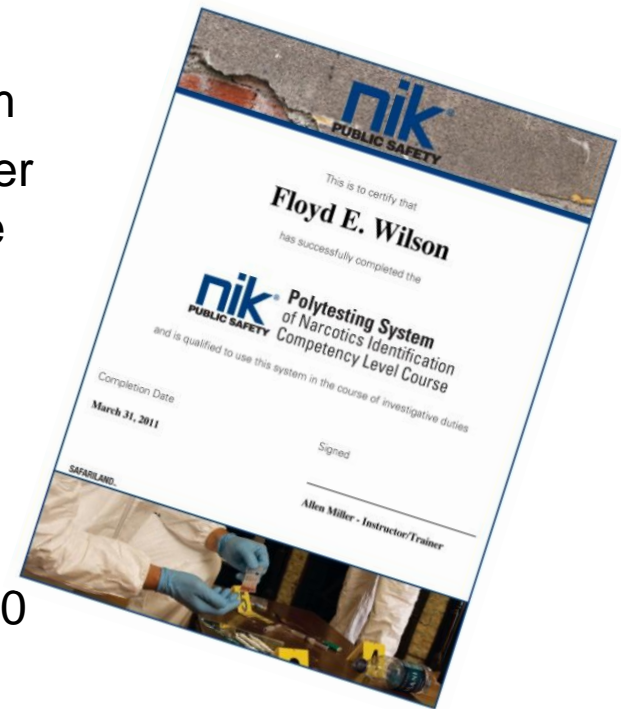


# Review: Storage and Shelf Life

- NIK Test Kits have no expiration dates, except Test O which carries a 6-month expiration date, and when stored properly, have an indefinite shelf life
- Since the chemicals in the kit pouches are sealed, they are not readily affected by surrounding conditions
- Kits should be stored like basic office supplies
- Long term exposure to direct sunlight should be avoided once the test kits have been removed from the box
- Do not leave test kits lying around; they should always be stored in the box

# Taking the Exam

- The Competency Exam for this training course is included as a separate file on this disk
- Students must score at least 80% to pass the exam
- Once you complete the exam and mark your answer sheet, forward the information to Customer Service
- Scan the answer sheet and e-mail it to [customercare.fsfa@safariland.com](mailto:customercare.fsfa@safariland.com)
- Once the answer sheet is graded and the student achieves a passing score, Customer Service will issue a Certificate of Completion
- Please contact Customer Service at (800) 347-1200 with any questions





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