



**DANCESAFE**

# HOW TO TEST YOUR DRUGS WITH REAGENTS

DanceSafe drug checking kits consist of **reagents** and **test strips**. Each tool can help you learn different kinds of information about your drugs.

## REAGENT KITS

Reagents are chemicals that turn different colors in the presence of certain drugs. They are useful for learning more about the general contents of your drugs and identifying any "red flags" in your sample.

## TEST STRIPS

Test strips can identify tiny amounts of a specific type of drug. For more information about fentanyl test strips, see our fentanyl test strip instruction pamphlet (included with every reagent kit, or online at [dancesafe.org/fentanyl/](https://dancesafe.org/fentanyl/)).

DanceSafe is the original and only nonprofit manufacturer of reagent kits in the US. All proceeds help us provide free, peer-based health and safety services – including free drug checking – at events across the country.



**DANCESAFE.ORG**

# START HERE

[dancesafe.org/testing-kit-instructions](https://dancesafe.org/testing-kit-instructions)

**1** START with section "HOW TO USE REAGENTS".

**2** NEXT, review the pamphlet to find the color chart for testing the specific drug(s) you have.

• If you are testing MDMA, MDA, amphetamine, methamphetamine, ketamine, LSD, or cocaine, refer to the "HOW TO TEST" sections of the pamphlet.

• If you are testing another drug, refer to the color chart on the back of the pamphlet. Remember, reagents can never test for fentanyl. Only a fentanyl test strip or lab equipment can do so.

**3** NEXT, test the substance using the instructions in "HOW TO USE REAGENTS" (to the right of this panel). Compare your color reactions to the color chart for the drug you're testing.

### Not sure about your reaction? Try:

- Testing again with a larger drug sample
- Making sure your testing surface is completely clean and dry, white, and non-porous (ceramic, porcelain, hard plastic)
- Using a "blank" by putting a drop of reagent, by itself, next to your test sample to compare the colors

**4** QUESTIONS? See FAQ on back.

## WHAT ARE REAGENTS?

Reagents are chemicals that change color when they come into contact with certain drugs. This pamphlet includes **expected reaction** colors for some of the most common drugs on the market.

Reagent reactions are referred to as "expected" or "unexpected." You might be able to pull more information out of your test results if you're very experienced, but it's important to be cautious and remember that only a lab can *confirm* the contents of your drugs.

### ✔ REAGENTS CAN...

- Tell you that the contents of your drugs may *not* be what you expected ("red flags")
- Give you information about the possible general contents of your drugs
- Inform your decisions around how, or if, you want to consume your drugs

### ✘ REAGENTS CAN'T...

- Tell you how potent your drugs are
- Tell you if your drugs are pure
- Confirm what's in your drugs ("green lights")
- Tell you if there are multiple things in your sample



# HOW TO USE REAGENTS

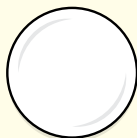
## WHAT YOU NEED



Drugs



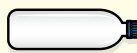
Reagents



White surface  
(hard plastic, ceramic, porcelain)



Gloves  
(reagents are corrosive!)



Water  
(for rinsing the plate)



Baking Soda  
(to neutralize reagents during cleanup – helpful, but you can rinse the testing surface with water and clean with soap if you don't have baking soda on hand)



## COMMON MISTAKES

- Using a dirty testing surface
- Using a non-white testing surface
- Using two-part reagents on two different samples\*  
\* Two-part reagents should be used on the same sample: sample + bottle A + bottle B
- Putting the reagent cap on the wrong bottle, or on a dirty surface\*  
\* May contaminate the whole bottle
- Using an expired reagent\*  
\* If you can't clearly see the reaction when using a test drop on sugar, or if the liquid is very dark, the reaction may not be readable or accurate.



## CAUTION! THIS PRODUCT IS HIGHLY CORROSIVE AND/OR TOXIC

If contact is made with the skin, wash with water immediately. If it gets in the eyes, flood the eyes with water for at least 10 minutes, holding them open. If accidentally ingested, rinse the mouth. Do not induce vomiting. Drink water and seek immediate medical attention.

## STEP 1 Collect a sample of your drugs.

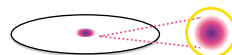
- Sample size:
- Pinhead (for approximate size)
  - Powder and pills
  - Blotter paper or gel tab (A tiny corner)
  - Liquid substance (One drop)
- Crush the sample finely  
• Note: If you're using Morris, double the sample size

## STEP 2 Use the reagent(s).

- 1** Uncap the reagent bottle. Hold the cap upside down in your other hand.\*
- 2** Add one drop to your sample. Do not touch the bottle to the sample.
- 3** Two-part reagents (Simon's, Morris, and Folin):  
Bottle A + Bottle B + Sample
- Morris only: stir the sample with a toothpick, or sharp object for 20 seconds.
- \*Putting the cap down on a surface, or on the wrong bottle, could contaminate the reagent.

## STEP 3 Read the reaction.

- 1** Observe the color change.
- Most reagent reactions are accurate for up to about 45-60 seconds.
  - Morris reactions are accurate for around 5 minutes.
  - Ehrlich's may take up to 20 minutes to react and the reaction is accurate for around an hour.
- 2** Compare your reaction to the color chart you're using. Color charts for individual drugs are located to the right of this page. A large general color chart is on the back of the pamphlet.



Substance

### REAGENT



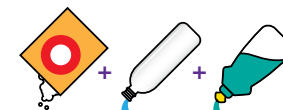
Multiple colors may be "expected" reactions for a given substance. If your result matches any of the colors shown, it is considered to be "expected." If the reaction color doesn't match the chart, the reaction is "unexpected." You can read more about expected and unexpected reactions on the FAQ page and the DanceSafe website.

## STEP 4 Repeat.

Most drugs need to be tested with more than one reagent. Refer to the color chart for the drug you're testing to see how many reagents are recommended. When using multiple reagents, put the cap back on the first reagent and repeat the process with the next reagent. Use a new sample each time.

## STEP 5 Clean up.

Use baking soda to neutralize the chemicals, then wash the testing surface with soap and water. Dry it off thoroughly before doing any more tests.



## STORAGE AND HANDLING

- Keep reagents out of heat and sunlight to prolong shelf life. A freezer is ideal.
- Most reagents typically last 1-2 years in the fridge, longer in the freezer.
- Dispose of reagents at a hazardous waste facility.
- Mandelin starts out light orange in color and turns cloudy yellow after 3-4 weeks. This is okay. Make sure to shake the bottle before each use.
- Other reagents gradually darken over time. They are only expired when the liquid in the bottle becomes too dark for reactions to be clearly readable. Use a test drop on sugar to make sure the reactions are clear.





# HOW TO READ THE REACTIONS



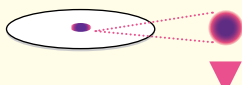
Read all reactions across *one single row*. If any of your reactions do not match the color(s) shown in that row, the test is "unexpected."

Methamphetamine	1		2		3		
Amphetamine	1		2		3		
Cocaine	2		NR			3	

## EXPECTED REACTIONS VS. UNEXPECTED REACTIONS

You didn't come across any red flags. Your color reaction(s) matched the chart for one particular drug. Remember, reagents can't tell you purity or potency, and they can't *confirm* the contents of your drugs.

You've come across a red flag. One or more of your reactions doesn't match the color chart across a single line. Your drugs may not be what you thought they were, or there is an unknown factor affecting your results.



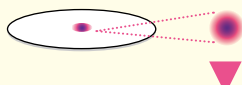
### COLOR CHART

#### REAGENT

Substance



If your result matches any of the colors shown, it is considered to be "expected."



### COLOR CHART

#### REAGENT

Substance



If your result doesn't match colors shown, it is considered to be "unexpected."



# HOW TO TEST AMPHETAMINE or METH

**BE CAREFUL!** Many pills that contain amphetamine are dyed and/or contain very small quantities of the active ingredient.

**Dyes:** Orange pills may dye the reaction with specks or clumps of orange. Blue pills may cause a muddy brownish color due to the blue dye mixing with an orange reaction.

**Amounts:** A pill that weighs a total of 150 mg might only contain 10 mg of actual amphetamine/meth. Use a larger sample size whenever possible.

- 1 Collect 3 samples.** Crush the samples finely.
- 2 Start with MARQUIS** on sample 1. Both amphetamine and meth turn orange in the presence of Marquis.
- 3 Then use SIMON'S** on sample 2. Meth turns blue in the presence of Simon's, while amphetamine does not react. Simon's is essential for telling meth apart from amphetamine.
- 4 Last, use FROEHDE** on sample 3. Froehde is an optional, but helpful, third step that provides one more data point.

**CAUTION!** Pills often contain dye, which may make the reaction hard to read. This is an example of a Froehde non-reaction with an orange pill.

## AMPHETAMINE or METH COLOR CHART

	MARQUIS	A SIMON'S B	FROEHDE
Amphetamine		NR	NR
Methamphetamine			NR



# HOW TO TEST COCAINE

Cocaine may produce a wide set of reagent reactions. Due to limitations on labs like DrugsData, we can't know if this is because of inactive cuts (such as baking soda) or something related to how cocaine is being made. Any of the reactions shown for each reagent are expected.

**NOTE:** Reagents cannot reliably tell you what your cocaine might be cut with.

- 1 Collect 3 samples.** Crush the samples finely. Double the size of the sample you use Morris on.
- 2 Start with MORRIS** (two part reagent) on sample 1. Morris turns bright blue in the presence of cocaine. Do not read the reaction until after you've stirred A + B + sample for 20 seconds.
- 3 Then use MARQUIS** on sample 2. Cocaine may produce a range of colors with Marquis. Anything from a non-reaction to a deep peach color is expected.

**NOTE:** The difference is subtle, but a peach color is not the same as a bright orange or red Marquis reaction. Bright orange or red may indicate the presence of an amphetamine rather than cocaine.



Expected reaction for cocaine



Possible amphetamine

- 4 Last, use LIEBERMANN** on sample 3. Cocaine may also produce a range of colors with Liebermann. Anything from a light yellow to orange is expected.

## COCAINE COLOR CHART

	A MORRIS B	MARQUIS	LIEBERMANN
Cocaine			



**WARNING!** As of early 2024, cocaine is one of the most common non-opioid drugs to be contaminated with fentanyl. Use a fentanyl test strip on your cocaine whenever possible. [dancesafe.org/fentanyl/](https://dancesafe.org/fentanyl/)

### WHAT ABOUT AMPHETAMINES AND ADULTERANTS?

Our understanding of how Marquis and Liebermann may react with cocaine has changed as the drug market has shifted. More information on this topic at the QR code to the right.



# HOW TO TEST LSD

Ehrlich's reagent tests for a class of drugs called "indoles." Ehrlich's should only be used to test drugs like LSD, psilocybin, and DMT.

- 1 Collect a sample.** Refer to "HOW TO USE REAGENTS" for information about sample sizes for each form of LSD.
- 2 Use EHRlich'S.** The reaction can take several minutes. Be careful not to confuse the reaction with purple dye in the blotter art.

## LSD COLOR CHART

	EHRlich'S
LSD (or other indoles)	

**NOTE:** Other reagents do have reactions with LSD, but Ehrlich's is by far the most important. You can use the main color chart to perform additional tests, if you'd like. There are not many common drugs that turn purple on Ehrlich's and have an active dose small enough to fit on blotter paper.



# HOW TO TEST MDMA or MDA

Drugs sold as “molly” or “ecstasy” are supposed to contain one main ingredient, a molecule called MDMA. Drugs sold as “sass” are supposed to contain a molecule called MDA. Regardless of what any drug is called when it’s sold, the only thing that matters is the molecule(s) it contains.

- 1 Collect 3 samples.** Make sure your samples are finely crushed up.
- 2 Start with MARQUIS** on sample 1. Marquis turns black in the presence of MDMA or MDA. You may also see a slight purple or brown tint, especially around the edges.
- 3 Then use SIMON’S** (two part reagent) on sample 2. Simon’s turns blue in the presence of MDMA. It may either 1) not react or 2) turn a muddy gray-green color in the presence of MDA.
- 4 Last, use FROEHDE** on sample 3. Both MDMA and MDA turn blue-tinted black in the presence of Froehde.

## MDMA or MDA COLOR CHART

	MARQUIS	A SIMON’S B	FROEHDE
MDMA “Molly/Ecstasy”			
MDA “Sass”		NR	



# HOW TO TEST KETAMINE

While Morris is the standard single-reagent test for ketamine, it can be helpful to use Liebermann as well to collect more data.

- 1 Collect a sample** (or two, if you are also using Liebermann). Crush the sample finely. Double your sample size when using Morris.
- 2 Start with MORRIS** (two part reagent) on sample 1. Don’t forget to stir A and B for 20 seconds. Morris typically turns violet in the presence of ketamine. The exact shade can vary, however, and may have more “blurple” (blue-purple) tones. We’re not sure what causes this variation.
- 3 If available, use LIEBERMANN** on sample 2. Ketamine turns a very, very pale yellow (sometimes so pale it’s hard to see) with Liebermann.

## KETAMINE COLOR CHART

	A MORRIS B	LIEBERMANN
Ketamine		

## NOTES ON OTHER DISSOCIATIVES

The novel dissociative market is always evolving. While two drugs, DCK and 2-FDCK, have distinct color reactions with Morris, they have become very uncommon in the last few years. Other dissociatives with unknown Morris reactions may have taken their place. We’ve verified that the following dissociatives do not react with Morris:

- phencyclidine (PCP)
- deschloro-n-ethyl-ketamine (2-Oxo-PCE)
- 3-methoxy-PCP (3-MeO-PCP)
- 3-chloro-PCP (3-Cl-PCP)
- 3-methoxy-PCE (3-MeO-PCE)
- 2-oxo-PCE (O-PCE)
- methoxpropamine (MXPr)
- methoxetamine (MXE)
- ephedrine (EPE)
- diphenidine (DPD)

# EXPECTED REACTIONS COLOR CHART

Version 17, Spring 2024

**Most reactions are accurate for about 45 seconds.**

- Ehrlich's may take up to 5 minutes to react.
- Morris results are typically accurate for at least 5 minutes.
- Ehrlich's results may be accurate for up to an hour. Ideally, read results within 20 minutes.

**Numbers (1, 2, 3, etc.):** Suggested order for using reagents. If a reagent isn't labeled with a number, it is considered less important for that test.

**NR / NO REACTION:** Reagent does not change color with the substance.

**UNKNOWN:** There is too little data available to know the reaction color(s), or the reactions have changed.

**INCONSISTENT:** Reaction colors are not typically consistent between tests.

**TIP:** Use a "blank," or a drop of reagent on its own, to compare the natural color of the reagent to the color of your reaction. Most reagents are tinted and may change color over time.

## MORE COMMON SUBSTANCES

	MARQUIS	A SIMON'S B	FROEHDE	LIEBERMANN	A MORRIS B	EHRlich'S	MANDELIN	MECKE	A FOLIN B
MDMA "Molly/Ecstasy"	1	2	3		NR	NR			UNKNOWN
MDA "Sass"	1	2 NR	3		NR	NR			UNKNOWN
Methamphetamine	1	2	3 NR		NR	NR		NR	NR
Amphetamine	1	2 NR	3 NR		NR	NR	NR	NR	UNKNOWN
Cocaine	2	NR	NR	3	1	NR	NR	NR	NR
Ketamine	NR	NR	NR		1	NR	NR	NR	NR
2C-B	1	INCONSISTENT	2	3	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN
2C-I	1	NR	2	3	UNKNOWN	NR	NR	NR	NR
Mescaline	1	NR	2	3	NR	NR			NR
LSD		NR			NR	1	NR	NR	NR
Oxycodone	1	UNKNOWN	3	2	NR	UNKNOWN	NR		UNKNOWN
Heroin	1	NR	2	3	NR	NR			NR
DMT	We're currently verifying DMT's reagent reactions. This line will be updated in the next version of these instructions.								
Sugar					NR	NR			NR

## LESS COMMON SUBSTANCES

**NOTE:** We advise only referring to this section if you purchased one of these substances intentionally. These drugs are not common on the market at this time, and we are still working on validating these color reactions to make sure they're still accurate.

5-APB / 6-APB		NR			NR	NR			
5-MAPB / 6-MAPB					NR	NR			
DCK/2-FDCK	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN		UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN
Mephedrone 4-MMC	NR		NR		NR	NR		NR	NR
PMMA	NR				NR	NR		NR	

**DON'T SEE THE SUBSTANCE YOU WANT TO TEST?** There are thousands of drugs on the illicit market. This chart represents the drugs you are most likely to come across in the U.S. drug market at the time of the most recent pamphlet update, and is not ideal for testing novel substances. It's a lot of work to stay up-to-date with reaction colors for novel drugs, so we only put reactions on the chart we feel absolutely confident about. You may be able to find reagent results for other drugs online. See the FAQ for more information.

# FREQUENTLY ASKED QUESTIONS

## Can reagents detect every drug?

No. Reagents don't react with some drugs, or may react inconsistently depending on how a drug was made. We don't know the reactions for every drug. The reactions may also change depending on how a drug is made, cut, or packaged.

## Can reagents tell you how pure or potent your drugs are?

No. As of spring 2024 we aren't aware of any legitimate purity test kit available for at-home purchase, and the only way to get "quantification" (know how much of a particular drug is in your sample) is to use a service like Kykeon Labs in Spain.

## Can reagents tell you if there are multiple drugs in your sample?

Not reliably. Even if you get the expected color reactions for the drug you want, there could still be one or more other drugs present. This may be because:

1. Not all drugs change color with reagents.
2. Darker colors may overshadow lighter colors.
3. A very tiny amount of a drug may not produce a visible color change.

## CANNABIS

### Can I test my weed with reagents?

We're not aware of any effective or helpful methods for testing cannabis with reagents at this time

## MUSHROOMS

### Can I test my mushrooms with reagents?

Technically yes, but it can be very difficult to read the reaction. Grind up a little bit of your shrooms and use a drop of Ehrlich's on a sample (about the size of a pinhead). Look for a purple reaction. Since shrooms are dense organic material, the reaction may be muddy and brown, or not visible at all.

## BENZOS

### Can I test my benzos (like Xanax) with reagents?

No. Most benzos don't react with most or all reagents. If anything, you can use reagents to see if your benzos *do* react (which they generally should not). Be aware that this is not a foolproof method. Lab analysis is ideal when testing benzos.



Explainer Article



Digital Instructions



Reaction Database

## MDMA / MDA

### Why is my Marquis reaction more purple than black?

You might have used too small of a sample. It's still an expected reaction, but if you use a larger sample you will probably get a darker color because the reaction is more concentrated.

### Why are there two reactions listed for MDA?

MDA may either not react or turn a muddy gray/green color with Simon's reagent. We're not sure why this started happening 2021, but both reactions are expected for an MDA-like substance.

## LSD

### What if I'm testing gel tabs?

Because gel tabs are much denser than regular blotter paper, the reaction may take a lot longer to read or barely be visible. Be aware that it may be tough to read the results.

### What if my blotter or gel tab is purple/blue?

Dye from blotter and gel tabs can make it difficult to tell whether a purple reaction is because of the dye in the tab. There's no perfect answer to this question except to look for an obvious purple color that tints the entire reagent droplet gradually over time, which might take up to 20 minutes.

### Can I test liquid LSD?

Yes, but sometimes LSD is diluted in things that can interfere with the test color, like certain dark alcohols or drinks. Water, saline solution, and simple clear alcohols like vodka should be OK.

## COCAINE

### What do I do if my Marquis reaction turns a bright or deep orange?

Please send a photo (must be taken within 45 seconds of the reaction) to [testit@dancesafe.org](mailto:testit@dancesafe.org).

### I don't know if my Morris reaction matches exactly.

Morris should turn a bright blue color with cocaine, like a blue raspberry Jolly Rancher. If you're not sure about your reaction, always try again with a larger sample. Morris has a "sea foam green" non-reaction that may add a greenish tint to your reaction if the sample size is too small.

## KETAMINE

### Is my Morris reaction purple enough?

If you're not sure how to read your reaction, always try again with a larger sample when possible. The Morris non-reaction is a "sea foam green" color. If your sample size is too small, the greenish tint of a non-reaction might mingle with the purple tint of a reaction, making the color seem a little funky. For a Morris reaction to be considered unexpected for ketamine, the color should be clearly out of the purple realm (slate blue, for example, is not expected for ketamine).

**MORE QUESTIONS?** Before reaching out to us, please make sure you've read the information under the Drug Checking tab on the DanceSafe website. If you still have questions you can email [testit@dancesafe.org](mailto:testit@dancesafe.org) or use the "Contact Us" tab on our website, [dancesafe.org](https://dancesafe.org).

# TEST BEFORE YOU INGEST™

DanceSafe is a drug checking, earplug slinging, party servicing nonprofit that was founded on social justice principles. Our programs include drug education, consent deep-dives, political advocacy, and event outreach, where our amazing volunteers distribute information and resources at DanceSafe booths across the country. We've been known for testing your drugs for free since 1998. Thanks for being part of our community — we're glad to have you with us.

You can support us by making a tax-deductible donation at [dancesafe.org/donate](https://dancesafe.org/donate), or get involved at [dancesafe.org/volunteer](https://dancesafe.org/volunteer).

## DANCESAFE SUPPLIES

Harm reduction is bigger than just drug checking! We're here to help you prep for the before, during, and after of your best day ever. Visit the DanceSafe website to check out our safer snorting tubes, hi-fi earplugs, legendary drug info cards, and more.



Supplies available at [dancesafe.org/shop](https://dancesafe.org/shop).

Discrete packaging.  
Overnight shipping available.

