

## Masking Agents Information Fact Sheet

### Scientific Name:

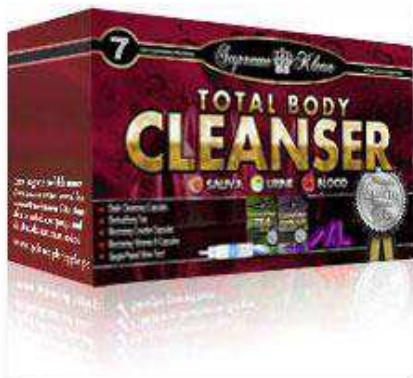
As related to drug testing, masking agents is a term for a group of reagents that are used or react with chemicals and possibly conceal the presence of the drugs.

### Other Common Names:

Urine Adulterants, Prosthetic Devices, Devices to Beat A Drug Test

### Description:

As drug testing gets more sophisticated, a whole industry has grown around the development of masking agents, urine adulterants, and devices to hide drug and alcohol use. Masking agents are compounds that are used purposefully to impair or conceal drugs and alcohol. Urine adulterants are a type of masking agent added to urine to dilute it or to conceal the chemicals in the urine. Masking agents may be ingested or added directly to a sample.



There are thousands of masking agents ranging from plain water to commercially produced products manufactured for the sole purpose of helping people cheat on their drug tests. Drug and alcohol users also use a variety of over-the-counter products, home chemicals, herbs, and devices like the prosthetic penis. The goal is to either dilute the urine or to “confuse” the drug test with the addition of legal chemicals.

Saliva and urine drug testing is much more sophisticated today, and drug screening laboratories recognize the use of masking agents. If masking agent use is suspected, the person may be required to retest. There are four strategies drug and alcohol consumers use to cheat on drug and alcohol tests.

- **Producing Clean Urine Sample:** There is a host of ways people have tried to hide urine. One of the easiest and thus most common attempts is diluting the urine by drinking a lot of water right before the test. The intent is to dilute the metabolites below the drug test threshold. However, trained sample collectors and quality laboratories recognize this attempt in a number of ways. For example, urine that is highly diluted is clear rather than yellowish, and laboratories test for creatinine and specific-gravity levels to check for urine dilution.
- **Diuretics** are also used to produce more urine on the theory the chemicals will be flushed when in fact their use can lead to dilute samples. Herbs and over-the-counter products like aspirin, niacin, and zinc sulphate have been used also in the belief the products divert metabolites to stool, or absorb toxins and block detection. The truth is that none of these

products work because of misinformation and the fact that drug testing laboratories have devised procedures that incorporate knowledge of what drug users are doing to cheat on their drug tests.

- **Adding Chemicals To Urine Samples:** Drug users may try to add household chemicals to urine samples. Typical products used include ammonia, bleach, soap, hydrogen peroxide, and many others. However, most of these products will alter the urine pH. On-site drug tests and laboratories now test samples for nitrates, pH, oxidants, and specific gravity and use of these chemicals as urine adulterants will be detected in one way or another. Trained sample collectors can recognize when urine samples look unusual due to things like foaming, odd colour, cloudiness, and so on.
- **Sample Substitution:** Another common method used to cheat on drug tests is substituting clean urine for dirty urine. Obviously, the person must be able to produce a sample under unsupervised conditions or have an opportunity to switch samples after the urine is collected. There are various ways this is attempted. One is to conceal clean urine on the person and give the false sample to the collector. The sample must be maintained at the right temperature which is challenging. The clean urine is usually someone else's urine or commercially produced powder urine. Urine that is older than 18 hours will quickly degrade, so this method is mostly attempted by people who have a good idea when the next drug test will be conducted (one reason why drug and alcohol testing should be random).
- **Commercial Toxin Removers:** There are commercial products that claim to cleanse toxins from the human system rather than mask chemicals or alcohol. They include detox drinks and pills made with vitamins, herbs, minerals, and other ingredients. There is no valid, medical research to prove whether the products work, but many physicians say that "toxin removal" is misleading marketing.
- **Devices:** Numerous devices are sold that are designed to help people cheat on their drug tests. Though they are not masking devices, they may involve the use of masking agents. These items include the prosthetic penis with urine delivery capability, urine dispensing kits that hold synthetic urine, urine warmers to maintain a substituted urine sample at the correct temperature, and balloons that can be filled with clean urine that women can place in the vagina.

It is more difficult to cheat on a saliva or breathalyser test than a urine test. The tester stands near or right in front of the person while collecting the sample. Any time samples are collected, it is important to use trained collectors knowledgeable in methods for ensuring valid saliva or urine samples are collected. Understanding how people attempt to cheat on drug and alcohol tests is important to developing collection policies and procedures that limit the ability of people to cheat. Any samples in doubt can be sent to a laboratory for in-depth screening, and further action taken, if necessary, based on the results.

#### Source:

Commercial products like detox solutions, capsules and tablets; devices; and synthetic urine are easily purchased online. Common household products, cleaning agents, and other solutions are purchased locally or may be found in the workplace.



#### **Forms:**

Liquid, Capsules, Tablets, Devices

#### **Health Effects:**

- Regular use of diuretics can lead to a number of health problems. The urinary tract fluid loss can lead to dehydration, low levels of potassium, muscle cramps, weakness, dizziness, low blood pressure, and Hypokalemia (disturbed neurological functioning, cardiac arrhythmia).
- Detox products are not regulated and may contain harmful, unknown ingredients.
- There are methods used by the drug community that have not been mentioned and can lead to health risks. For example, drinking too much vinegar to mask drug use can cause violent diarrhoea. Using an excessive amount of fibre laxatives in the belief it enhances elimination of THC (cannabis) in the stool can lead to bowels dependent on the laxative.
- Devices like balloons for holding urine can cause infections when burst.

#### **Detection:**

Drug screenings detect drugs and metabolites produced after the liver and kidneys process the chemicals. Laboratories added additional testing procedures in recognition of the fact people use masking agents, adulterants, and products like synthetic urine. However, there are also rigorous on-site instant screening devices available that check for, in addition to drugs, creatinine, nitrate, gluteraldehyde, pH, special gravity, oxidants, and pyridinium chlorochromate. Also checked is urine temperature, and collectors can note colour. By following the correct procedures and using high quality testing equipment and screening laboratories, it is very difficult for people to cheat on their drug and alcohol tests.