



■ **HOW THE NEW MARKER WORKS:**

- The person who is to provide the sample takes the marker in sugared coffee, tea or other liquids sweetened with household sugar
- The marker is excreted quickly via the kidneys without having been metabolised
- The sample can be given after 30 minutes without supervision
- The laboratory verifies whether the urine contains the applied marker

■ **ATTEMPTS TO DEFRAUD**

The main problem for precise drug tests is ensuring that the tested urine sample actually came from the person who was supposed to provide it. Urine manipulation by adding chemicals etc. or diluting urine is recognised by specially developed testing procedures.

Drug analysis is essential for checking substitution therapy. Exchanging urine samples could only be prevented to date using intensive visual checks.

■ **NO NEED TO ACCOMPANY THE PERSON TO THE TOILET**

The prescribed accompanying of those being tested to provide the sample is considered humiliating and annoying, both by those being tested and the care staff. The marker liquid ensures that the sample can be clearly matched to the patient. In addition, the German Federal Ministry of Health has discovered that even when urine is provided under supervision, attempts to defraud were still successful.

■ **RUMA HAS DEVELOPED A COMPLETELY NEW SECURITY CONCEPT**

This concept virtually excludes the possibility of swapping samples. It is easy to use and completely harmless: 30 minutes before taking the urine sample, the person being tested is given a marker (usually 1g) in a drink (orally). The marker substances themselves are completely harmless. They are easily detected in the urine and, as a result of their rapid absorption, are equally quickly eliminated via the kidneys. They are not subject to the regulations in the German Drug Law or the German Act on Medical Devices.

We use macrogols as marker substances. These are mixtures of polyethylenglycols with various molecular weights. Macrogols have been used for decades already as a solvent, for example, in cough syrup approved even for children.

The marker means that the urine sample can be clearly matched to the person being tested and exchanging it for somebody else's is no longer possible. There are ever increasing attempts to swap samples, e.g.

- using resources ordered on the Internet,
- third-party urine in condoms or
- adding another person's urine to the bladder.

Using the marker systems allows discovery of efforts to deceive and not only saves costs but also relaxes the person to be tested as well as supervisory personnel and doctors.

RUMA[®]
Marker-System



■ **NEW MARKER TEST PROCEDURE**

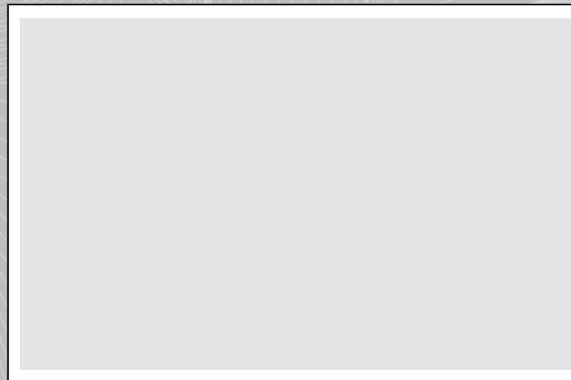
- *Urine check without supervision*
- *Secure detection of third-party urine samples and manipulation*
- *Mutual trust not affected by visual control*
- *No organisational effort to provide same-gender supervision*
- *No delay due to inhibition to urinate while being watched*

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Made in Germany. Without gelatine.

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Marker-System

