

Hands on basic instructions

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CONNECTING
PEOPLE
SCIENCE AND
REGULATION®

Goal of the Experiments

- Identify important parameters
- Recognize behavior of different particles
- It's hard to be an inspector even for half a day



Test Set



- Test set contains 28 vials
- Blanks and rejects
- Every Inspector has to inspect all 28 vials in each experiment
- Patiently wait until the class is ready to move on to the next experiment

Documentation

- Write down your name on the data sheet
- Write down 3 digit number of the vial and your observation
- Write down Test set number
- Each inspector has to write down the inspection results for the entire set of 28 vials
- Write clearly

PARTICLE INSPECTION DATA SHEET #1: Normal Inspection

Inspector: _____ Test Set ID: _____

Inspection Station: _____ Illumination Intensity: _____ lux

FULL Illumination Intensity WITH Agitation 5 Sec/Background



Setup of the instrument



Switch on
both lamps

Measure light
intensity. Mark
a position at ~
3000 Lux

Mark a position
at ~ 3000 Lux

Tools



Tools

- Remove cover from sensor
- Select measurement range
- Just listen to the metronome while inspecting to get the right timing



Inspection Technique

- Pick up vial holding at approximately a 30-degree angle
 - **bring to the black and then the white background** to inspect for any heavy particles on the lower portion of the vial bottom.
- Gently swirl to inspect for any fine sediment on the bottom of the vial in **both backgrounds**.
- **In front of the black background**, Fully invert to fully 'wash' the stopper area, return upright, and swirl the vial looking for particulate matter.
- **In front of the white background**, Fully invert, return upright, and swirl looking for particulate matter.
- Record results on data sheet.

Training

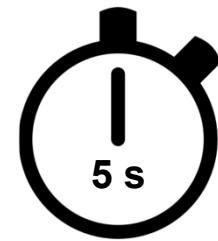
- Two vials of each set (marked with a dot) contain easy to observe particles
- Make yourself familiar with swirling and inverting for a couple of minutes with these vials to practice the particle detection
- Try swirling and inverting



Exp. 1: Standard condition



Inspect at
marked position



Inspection time
5s black, 5 s
white
background

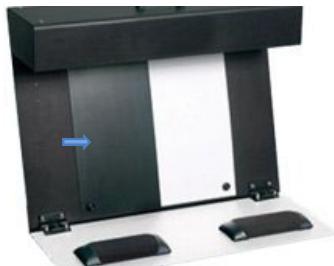


Swirl or
invert

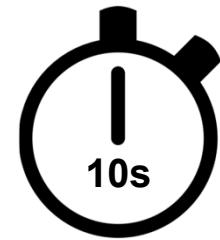


Record
result

Exp.2: Elevated inspection time



Inspect at marked position



Inspection time
10s black, 10s
white
background



Swirl or invert



Record result

Exp.3: Reduced Light intensity - setup

12



Switch off
one lamp

Measure light
intensity



Mark a position
at ~ 1500 Lux

ML9

Folie 12

ML9

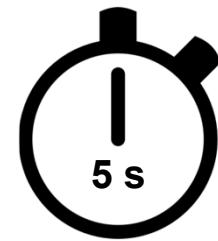
fehler

Markus Lankers; 04.04.2017

Exp.3: Reduced Light intensity



Inspect at
marked position



Inspection time
5s black, 5 s
white
background



Swirl or
invert

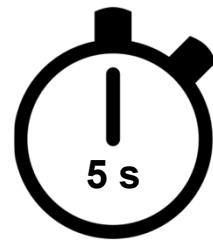


Record
result

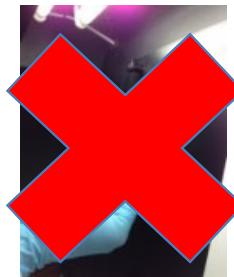
Exp.4: No agitation



Inspect at
marked position



Inspection time
5s black, 5 s
white
background



No
Swirling
or
inverting



Record
result