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rapid microbiology – on-site technology

Quick protocol for Mycometer® surface Fungi

This is a brief overview of the basic steps for people with prior experience with the analysis.
See the Mycometer®-surface Fungi manual for a thorough description.

Calibrating the Instrument
1. For calibration you need a black cuvette and a cuvette with a fluorescent standard (red cap) from the bag labelled "**Standard**".
2. Turn ON the instrument. The display should show UV and 0.0.
3. Press CAL followed quickly by ENTER. Insert the black cuvette and press ENTER again.
4. Insert the cuvette with the fluorescent standard and press ENTER. Press ENTER again when the display reads "Calibration completed?".
5. Check the calibration by pressing READ while the cuvette with **Standard** solution is still in the instrument. The measured standard value must be within the criteria seen on the backside of the instrument and should be noted in the data sheet as "measured standard value".
Conducting the Test
1. For each sample, you will need 1 **Substrate,** 1 **Activator** and 2 **Developers**. Take them out of the refrigerator 30 minutes before use.
2. Additionally, 2 pipette tips (100 µl) are needed per sample.
3. Place the samples (cotton swabs) in the rack and then a **Substrate** tube and a cuvette with a **Developer** tube inserted, for each sample. All the chemistry must be room temperature.
4. Activate the substrate by pouring the content of the **Activator** tube into the **Substrate** tube. Put the lid on and shake to mix.
5. Remove the **Developer** tube from the Cuvette. For each sample, transfer 100 µl of the substrate solution to the empty cuvette. Do not touch the tip of the pipette tips and always check visually that the pipette tip has the right volume of solution.
6. Pour the content of the **Developer** tube into the cuvette. Put the cuvette into the fluorometer and measure the fluorescence. Note the value as the Blank values (BV). Repeat the procedure for all samples.
7. Discard the cuvette and place a new **Developer** in the rack.
8. Check the temperature and set the timer according to the temperature/reaction time table on the backside of this protocol. Note the temperature and reaction time in the data sheet. The room temperature must be between 18-30 °C or 64.4-86 °F
9. Loosen the cotton swab from the tube and place it on the edge of the tube for easy handling.
10. Quickly transfer the cotton swabs to the **Substrate** tubes and start the timer when the last cotton swab has been transferred. Now the reaction has started. Press the cotton swab into the side of the tube to loosen the cotton and increase the accessibility for the substrate.
11. When the timer signals, move the cotton swab up and down a few times to mix. Then remove the cotton swabs from the **Substrate** tubes.
12. Immediately after, transfer 100 µl of the **Substrate** solution to the new cuvette (remove the Developer tube). Pipette liquid from the upper half of the substrate tube to avoid/reduce precipitating particles. Pour the content of the **Developer** tube into the cuvette.
13. Read the cuvette and record the analysis value (AV) on the data sheet.
14. Calculate the Mycometer surface Fungi value (MSFV): MSFV = AV – BV

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Temperature Celsius	Reaction time (min:sec)	Temperature Farenheit
18.0	42:00	64.4
18.5	40:35	65.3
19.0	39:14	66.2
19.5	37:55	67.1
20.0	36:40	68.0
20.5	35:27	68.9
21.0	34:17	69.8
21.5	33:09	70.7
22.0	32:04	71.6
22.5	31:01	72.5
23.0	30:00	73.4
23.5	29:02	74.3
24.0	28:05	75.2
24.5	27:11	76.1
25.0	26:18	77.0
25.5	25:28	77.9
26.0	24:39	78.8
26.5	23:52	79.7
27.0	23:06	80.6
27.5	22:22	81.5
28.0	21:40	82.4
28.5	20:59	83.3
29.0	20:20	84.2
29.5	19:41	85.1
30.0	19:05	86.0

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