

SUMMARY

SANDEC developed different prototype material which has been field tested in the SODIS demonstration projects. SODIS plastic bags were used to attract the interest of the people on the new water treatment method. Temperature sensors have been distributed to record whether the threshold water temperature of 50 °C has been attained or not.

BACKGROUND INFORMATION

Use of SODIS Bags

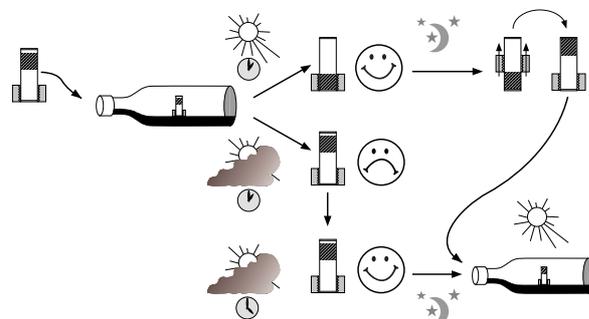
- Fill half of the bags with raw water
- Drive the air out of the bags and close them
- Place the bags in the morning hours on a spot receiving full sunlight throughout the day
- Place the bags in horizontal position on a firm blackened suport, preferably on a corrugated iron sheet/roof or tile roof
- Collect the bags in the late afternoon and store them in a safe place for cooling
- Consume the treated water directly from the bag using a clean glass or cup, store it possibly overnight for additional cooling

Use of Temperature Sensor

The SODIS Temperature Sensor (TS) is an aid for the user. It does not influence the SODIS process but is an indicator for the expected efficiency. When the temperature of 50°C is reached, the paraffine inside the TS melts and drops to the bottom. At this temperature, SODIS needs just one hour to inactivate the pathogens. The following day, the TS can be reused by pulling the screw to the opposite side of the paraffine and placing the TS inside the bag or bottle again (see Figure below).

When 50°C are not reached, the paraffine doesn't melt. If that's the case, the SODIS bag or bottle must be exposed for at least five hours to ensure inactivation. On very cloudy days and/or low temperature, an exposure for two consecutive days should be considered (see also Technical Note #11, Covered Sky Conditions).

☹	☺
<p>5 l</p>	<p>2 - 3 l</p>



Use of the Temperature Sensor. After the paraffine has melted down, the screw is pulled up, making the sensor ready for use again.

REFERENCES