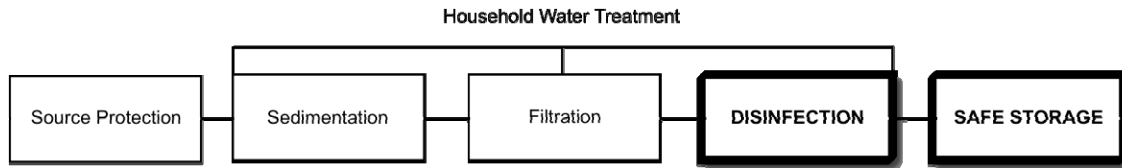


# Household Water Treatment and Safe Storage Fact Sheet: Solar Disinfection (SODIS)

## The Treatment Process



## Effectiveness

Very Effective For:	Somewhat Effective For:	Not Effective For:
<ul style="list-style-type: none"> <li>• Bacteria</li> <li>• Viruses</li> <li>• Some protozoa</li> <li>• Helminths</li> </ul>		<ul style="list-style-type: none"> <li>• Turbidity</li> <li>• Chemicals</li> <li>• Taste, smell, colour</li> </ul>

## How Does it Work?

SODIS uses the rays from the sun to kill pathogens in the water. It can be used to disinfect small quantities of water with low turbidity. Households fill transparent, non-coloured plastic bottles made from polyethylene terephthalate (PET) and place them in direct sunlight. Water can be used directly from the bottle to avoid recontamination.

## Effectiveness

- Quality: Very effective in removing pathogens; provides safe storage to prevent recontamination
- Quantity: 1-2 litres/bottle
- Local water: Should only be used with clear water; may need to sediment and filter water before using SODIS

## Appropriateness

- Local availability: Plastic bottles are available in most places
- Time: 6 hours on a sunny; up to 2 days when cloudy; cannot use when raining
- Operation and maintenance: Simple
- Lifespan: Bottles need to be replaced if they have a lot of scratches

## Acceptability

- Taste, smell, colour: People do not like to drink warm water; does not change smell or colour
- Ease of use: Easy

## Cost

- Initial purchase cost: Free or low cost since households can use recycled plastic bottles
- Operating cost: None

