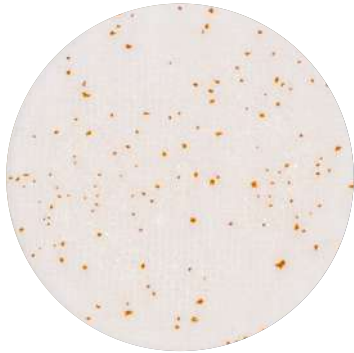




## Compact Dry™ AQ

Ready-to-Use Medium for  
**Heterotrophic Bacteria**



### Background

Following guidelines set by the WHO, treated drinking water should be free from contaminating microorganisms. Heterotrophic Plate Count (HPC) represents the total microbial count in water, including bacteria, yeast and mold. Traditional plate methods have been widely used to determine microbial counts, but these methods are time-consuming and require media preparation. To save operator time and make it possible for anyone to perform the microbial count test without difficulty, Compact Dry was developed based on a new concept and technology available to the food industry. Compact Dry allows for easy addition of a sample to the device.

Compact Dry AQ is a simplified medium to determine Heterotrophic Bacteria in drinking water.

### Features and Benefits

1. Small and compact plate: Need only small physical spaces for storing, testing, and incubating.
2. Ready to use and portable plate: No need to prepare medium.
3. Sample diffuses automatically and evenly into the plate.
4. Clear color development by redox indicator: Easy to read the results. Isolated colonies can be subcultured individually to other media.

### Warnings and Precautions

#### 1. General precautions

- Read and follow precisely the warnings and directions for use described in the package insert and/or label.
- Do not use the product after its expiration date. Quality of the product is not warranted after its shelf life expires.
- Do not use product that contains any foreign materials, is discolored or dehydrated, or has a damaged container.
- Use plates as soon as possible after opening. Return any unused plates to the aluminum bag and seal with tape to avoid light and moisture.
- Cap tightly after inoculation to avoid dehydration of gelled medium.

#### 2. Safety precautions

- If medium or reagent comes into contact with eyes or mouth, immediately wash with water and consult a physician.
- Procedures with microorganisms involve certain risks of laboratory-acquired infections. Procedures should be carried out under the supervision of trained laboratory personnel with biohazard protection measures.
- Treat any laboratory equipment or medium that comes into contact with the specimen as infectious and sterilize appropriately.

#### 3. Precautions for disposal of waste

- Sterilize any medium, reagent or materials by autoclaving or boiling after use, and then dispose of it as industrial waste according to local laws and regulations for disposal of such material.

#### 4. User responsibilities

- It is the user's responsibility in selecting any test method to evaluate a sufficient number of samples with particular foods and microbial challenges to satisfy the user that the chosen test method meets the user's criteria.
- It is the user's responsibility to determine that any test methods and results meet its customers or suppliers' requirements. The user must train its personnel in proper testing techniques.
- It is the user's responsibility to validate the performance of this method for use with any non-certified matrix.

#### 5. Limitation of warranties

- Compact Dry plates are manufactured at ISO 9001:2015 facility. If any Compact Dry plate is proven to be defective by fault of the manufacturer or its authorized distributors, they may replace or, at their discretion, refund the purchase price of any plate. These are the exclusive remedies.

### Storage and Shelf Life

Storage: Keep at room temperature (1 – 30°C)  
Shelf life: Twenty-four (24) months after manufacturing.  
Shelf life is printed on both label of outer box and aluminum pouch.

### Package

Compact Dry AQ 100 plates    Code 54061  
Compact Dry AQ 1400 plates    Code 54061- cs

### Further Information

#### Customer Support

Shimadzu Diagnostics Corporation  
3-24-6, Ueno, Taito-ku, Tokyo 110-0005 Japan  
Phone: +81-3-5846-5707  
contact@sdsc.shimadzu.co.jp

### Manufactured by

Shimadzu Diagnostics Corporation  
3-24-6, Ueno, Taito-ku, Tokyo 110-0005, Japan

Kit components, operating  
instructions and interpretation



## Intended Use

This product is intended for use by microbiologists for the enumeration of Heterotrophic plate count for Water testing.

## Test Kit Components

1. Compact Dry AQ plates

## Additional Reagents and Supplies Required, Not Provided

Saline solution diluent

### Apparatus

1. Stomacher or equivalent for homogenizing sample.
2. Pipets – 1 mL
3. Incubator – capable of maintaining  $36 \pm 2^\circ\text{C}$  (Filter /SMEWW method) or  $22 \pm 2^\circ\text{C}$  (ISO6222:1999)

## Operating Procedure

### Preparation of specimen

Viable count in water

1. Add 1 ml of the tested water on the middle of the Compact Dry plate. The sample will diffuse equally over the Compact Dry AQ plate

Viable count using filter technology

1. For membrane water filter samples, use a 47 mm Mixed Cellulose Ester filter (MCE; 0.45  $\mu\text{m}$  pore size). Prior to applying the filter on the Compact Dry plate, pre-wet the plate with 1 ml buffer. After water filtration place the filter in the center of the Compact Dry AQ Plate, grid side up.

## Directions for Compact Dry AQ

1. Do not use CompactDry AQ for human and animal diagnosis.
2. During inoculation, do not touch the surface of medium.
3. During incubation, keep lid tight to avoid any possible dehydration.
4. The enumeration range is 1 – 300 cfu/plate. Dilute samples further in the appropriate diluent as necessary to achieve a concentration level in the countable range.
5. If the nature of sample affects the reaction of the medium, inoculate the sample only after the factor has been eliminated by means such as dilution, pH adjustment, or others. This may include samples with high viscosity, deep color, or too high or too low pH.

## Precautions for Use

1. Do not use CompactDry AQ for human and animal diagnosis.
2. During inoculation, do not touch the surface of medium.
3. During incubation, keep lid tight to avoid any possible dehydration.
4. Use of filtered stomacher bags is recommended to eliminate risks of carryover of tiny pieces of foodstuffs onto the surface of the medium.
5. The enumeration range is 1 – 300 cfu/plate. Dilute samples further in the appropriate diluent as necessary to achieve a concentration level in the countable range.
6. If the nature of sample affects the reaction of the medium, inoculate the sample only after the factor has been eliminated by means such as dilution, pH adjustment, or others. This may include samples with high viscosity, deep color, or too high or too low pH.

## Interpretation

Compact Dry AQ is composed of a nutrient-poor culture medium for bacteria adapted to nutrient-poor conditions. The chromogenic substrate results in red heterotrophic bacteria colonies after incubation, allowing simplified visualisation and enumeration.

## Precautions for Interpretation

1. If more than 104 cfu/mL were inoculated onto a plate, no distinguishable colored colonies will form, and the entire plate may become colored.
2. The medium size is 20 cm<sup>2</sup> and the back of container has a carved grid of 1 cm x 1 cm to make colony counting easier. When it is difficult to count the colonies due to a great large number of colonies grown in the medium, the total colony number can be obtained by multiplying 20 by an average number of colonies per grid (1 cm x 1 cm) calculated from representative grids.

## Warning and Direction for Use

### General precautions

1. Read and precisely follow the warnings and directions for use described in the package insert and/or label.
2. Do not use the product after its expiration date. The quality of the product is not guaranteed after its shelf life.
3. Do not use products that contain any foreign materials, is discolored, or dehydrated, or has a damaged container.
4. Use plates as soon as possible after opening. Any unused plates should be returned to the aluminum pouch sealed with tape to avoid light and moisture and stored at room temperature shelf life 30 days after opening.
5. Lid tightly after inoculation to avoid dehydration of gelled medium.

### Safety Precautions

1. Wash immediately with water if medium or reagent comes into contact with eyes or mouth. Consult a physician.
2. Laboratory testing with microorganisms involve certain risks of laboratory-acquired infections. Good laboratory practice under the supervision of trained laboratory personnel with biohazard protection measures is recommended.
3. Treat laboratory equipment or medium that comes in contact with the sample as infectious and sterilize appropriately.

### Precautions for disposal of waste

Sterilize any medium, reagent or materials by autoclaving or boiling after use, and then dispose of it as industrial waste according to local laws and regulations.

### User responsibility

1. It is the user's responsibility in selecting any test method to evaluate a sufficient number of samples with particular foods and microbial challenges to satisfy the user that the chosen test method meets the user's criteria.
2. It is the user's responsibility to determine that any test methods and results meet its customers' or suppliers' requirements. The user must train its personnel in proper testing techniques.
3. It is the user's responsibility to validate the performance of this method for use with any non-certified matrix.

### Limitation of Warranties

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