

# Instructions for Use

## CRITERION™ DEXTROSE TRYPTONE AGAR

<a href="#">Cat. no. C5620</a>	CRITERION™ Dextrose Tryptone Agar	60gm
<a href="#">Cat. no. C5621</a>	CRITERION™ Dextrose Tryptone Agar	500gm
<a href="#">Cat. no. C5622</a>	CRITERION™ Dextrose Tryptone Agar	2kg
<a href="#">Cat. no. C5623</a>	CRITERION™ Dextrose Tryptone Agar	10kg
Cat. no. C5624	CRITERION™ Dextrose Tryptone Agar	50kg

### INTENDED USE

Hardy Diagnostics CRITERION™ Dextrose Tryptone Agar is used for cultivating thermophilic "flat-sour" microorganisms associated with food spoilage.

This dehydrated culture medium is a raw material intended to be used in the making of prepared media products, which will require further processing, additional ingredients, or supplements.

### SUMMARY

Dextrose Tryptone Agar is used for isolating "flat-sour" organisms from food products. "Flat-sour" spoilage of canned foods is caused by *Bacillus coagulans*. Bacterial growth results in a 0.3-0.5 drop in pH, while the ends of the can remain flat.

*B. coagulans* is a soil microorganism that can be found in canned tomato products and dairy products. Conditions favorable for multiplication of the bacterium can result in spoilage of the food product.<sup>(2)</sup>

Dextrose Tryptone Agar can also be used to isolate other food spoilage bacteria: mesophilic aerobic spore-formers in the genera *Bacillus* and *Sporolactobacillus* and thermophilic "flat-sour" spore-formers such as *Geobacillus stearothermophilus*.<sup>(2)</sup>

### FORMULA

Gram weight per liter:	30.0gm/L
Tryptone	10.0gm
Dextrose	5.0gm
Bromcresol Purple	0.04gm
Agar	15.0gm

Final pH 6.7 +/- 0.2 at 25°C.

\* Adjusted and/or supplemented as required to meet performance criteria.

## STORAGE AND SHELF LIFE

Store the sealed bottle(s) containing dehydrated culture medium at 2-30°C. Dehydrated culture medium is very hygroscopic. Keep lid tightly sealed. Protect dehydrated culture media from moisture and light. The dehydrated culture media should be discarded if it is not free-flowing or if the color has changed from its original light greenish-beige.

Store the prepared media at 2-8°C.

The expiration date on the product label applies to the product in its intact packaging when stored as directed. The product may be used and tested up to the expiration date on the product label and incubated for the recommended incubation times as stated below.

Refer to the document "[Storage](#)" for more information.

## PRECAUTIONS

This product may contain components of animal origin. Certified knowledge of the origin and/or sanitary state of the animals does not guarantee the absence of transmissible pathogenic agents. Therefore, it is recommended that these products be treated as potentially infectious, and handle observing the usual universal blood precautions. Do not ingest, inhale, or allow to come into contact with skin.

This product is for laboratory use only. It is to be used only by adequately trained and qualified laboratory personnel. Observe approved biohazard precautions and aseptic techniques. All laboratory specimens should be considered infectious and handled according to "standard precautions." Refer to the document "[Guidelines for Isolation Precautions](#)" from the Centers for Disease Control and Prevention.

For additional information regarding specific precautions for the prevention of the transmission of all infectious agents from laboratory instruments and materials, and for recommendations for the management of exposure to infectious disease, refer to CLSI document M29: *Protection of Laboratory Workers from Occupationally Acquired Infections*.

Sterilize all biohazard waste before disposal.

Refer to the document "[Precautions When Using Media](#)" for more information.

## METHOD OF PREPARATION FOR DEHYDRATED CULTURE MEDIA

1. Suspend 30.0gm of the dehydrated culture media in 1 liter of distilled or deionized water.
2. Heat to boiling and mix to dissolve completely.
3. Sterilize in the autoclave at 121°C. for 15 minutes.
4. Cool to 45-50°C. Aseptically dispense into sterile petri dishes.

## PROCEDURE AND INTERPRETATION OF RESULTS

For information on procedures and interpretation of results, consult listed references.

## LIMITATIONS

It is recommended that biochemical, immunological, molecular, or mass spectrometry testing be performed on colonies from pure culture for complete identification.

Some formulations may require a settling period before pH testing of the prepared medium. If the pH is tested

immediately after preparation and is out of specification, retest the medium after 24 hours to obtain final pH results. Always take pH reading at room temperature.

Refer to the document "[Limitations of Procedures and Warranty](#)" for more information.

## MATERIALS REQUIRED BUT NOT PROVIDED

Standard microbiological supplies and equipment such as autoclaves, incinerators, and incubators, etc., are not provided.

## QUALITY CONTROL

Hardy Diagnostics tests each lot of commercially manufactured media using appropriate quality control microorganisms and quality specifications as outlined on the Certificate of Analysis (CofA) and the CLSI document M22-A3 *Quality Assurance for Commercially Prepared Microbiological Culture Media*. The following microorganisms are routinely used for testing at Hardy Diagnostics:

Test Organisms	Inoculation Method*	Incubation			Results
		Time	Temperature	Atmosphere	
<i>Geobacillus stearothermophilus</i> ATCC® 12980	A	36-48hr	55°C	Aerobic	Growth; color change from purple to yellow

\* Refer to the document "[Inoculation Procedures for Media QC](#)" for more information.

## USER QUALITY CONTROL

Users of dehydrated culture media should perform QC testing in accordance with applicable government regulatory agencies, and in compliance with accreditation requirements. Hardy Diagnostics recommends end users check for signs of contamination and deterioration and, if dictated by laboratory quality control procedures or regulation, perform quality control testing to demonstrate growth or a positive reaction and to demonstrate inhibition or a negative reaction, if applicable. Hardy Diagnostics quality control testing is documented on the certificate of analysis (CofA) available from Hardy Diagnostics [Certificate of Analysis](#) website. In addition, refer to the following document "[Finished Product Quality Control Procedures](#)," for more information on QC or see the reference(s) for more specific information.

## PHYSICAL APPEARANCE

CRITERION™ Dextrose Tryptone Agar powder should appear homogeneous, free-flowing and light greenish-beige in color. The prepared media should appear slightly opalescent, without significant precipitate, and purple in color.

## REFERENCES

1. National Canners Association. Bacterial standards for sugar. 1933.
2. Vanderzant, C. and D.F. Splittstoesser, (ed.). 1992. *Compendium of Methods for the Microbiological Examination of Foods*, 3rd ed. American Public Health Association, Washington, D.C.

ATCC is a registered trademark of the American Type Culture Collection.

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[Ordering Information](#)

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