SNAPSHOOT
ENGINEERED FOR A SAFER TOMORROW

현장을 이해하고, 필요한 솔루션을 연결합니다.

산업안전 · 추락방지 시스템
산업용 소재 · 건축자재
제품 제안부터 공급·시공·설치·교육까지



COMPANY INFORMATION

스냅슛 (SNAPSHOOT)

ADDRESS (15431) 경기도 안산시 단원구 풍전로 37-9 트리플렉스 301동 118호
TEL 0507-1374-9229
FAX 0504-481-6749
E-MAIL bkkim@snapshoot.co.kr

TECHNICAL DOCUMENTS

인증서 · 데이터시트 · 기술자료

제품의 규격과 성능, 인증 및 적용 조건을 확인하기 위한 자료입니다.

ABOUT SNAPSHOOT

제품 공급을 넘어, 현장에 맞는 해결책으로

스냅슛은 산업현장의 작업 환경과 요구 조건을 바탕으로
적합한 제품과 시스템을 제안합니다. 현장 실사를 통해 설치 조건을 확인하고,
공급부터 시공·설치 및 사용 교육까지 필요한 과정을 함께합니다.

추락방지 시스템

안전대부착설비 · 수평·수직 라이프라인
레일 시스템 · 리지드 포스트

밀폐공간 진입·구조 솔루션

데빗암 · 삼각대 · 구조용 윈치
윈치 안전블록 · 구조장비

산업안전 보호구

전신형 안전대 · 랜야드 · 안전블록
작업 환경에 맞춘 개인보호구

산업용 소재·건축자재

산업용 테이프 · 접착제 · 기능성 소재
구조용 스크류 · 목조건축 자재

SNAPSHOOT
ENGINEERED FOR A SAFER TOMORROW

홈페이지 바로가기 →
문서 라이브러리 바로가기 →
시공사례 바로가기 →
문의하기 →

본 페이지는 스냅슛의 자료 제공 안내용 표지입니다. 첨부된 인증서 및 기술자료의 발행 주체, 인증 대상과 적용 범위는 해당 원문을 기준으로 확인해 주세요.

Record ID: FS-TSS-0255 Revision Number: 1.0 Effective Date: 2023-08-08 12:00 AM EDT

Tetrathionate Broth Base
SKU: 700003226, 700003227, 700003228, 700003229
NCM0092

Intended Use
Tetrathionate Broth Base is used with iodine for the recovery of *Salmonella* spp in a laboratory setting. Tetrathionate Broth Base is not intended for use in the diagnosis of disease or other conditions in humans.

Description
Tetrathionate Broth Base is used as a selective enrichment for the cultivation of *Salmonella* spp.. *Salmonella* organisms may be injured in food-processing procedures, which include exposure to low temperatures, sub-marginal heat, drying, radiation, preservative, and sanitizers.

Mueller demonstrated the effectiveness of Tetrathionate Broth for enriching typhoid and paratyphoid bacilli while inhibiting coliform organisms. Using modified Mueller's broth, Kauffmann increased the number of positive isolates. Tetrathionate Broth was used in studies for the poultry industry and in a collaborative study for rapid screening of *Salmonella* in food. Tetrathionate Broth Base, abbreviated as TT Broth Base, is specified in standard methods for *Salmonella* testing. The FDA, Bacteriological Analytical Manual incorporate Tetrathionate Broth Base as a pre-enrichment medium for detecting *Salmonella* in food materials.

Typical Formulation
Enzymatic Digest of Casein	2.5 g/L
Enzymatic Digest of Animal Tissue	2.5 g/L
Bile Salts	1.0 g/L
Calcium Carbonate	10.0 g/L
Sodium Thiosulfate	30.0 g/L

pH: 8.4 ± 0.2 at 25°C
Formula is adjusted and/or supplemented as required to meet performance specifications.

Supplement
Iodine-Potassium Iodide Solution
Composition per 20.0 mL

Potassium Iodide	5.0g
Iodine	6.0g

Precaution
1. Refer to SDS

Preparation
1. Dissolve 46 g of the medium in one liter of purified water.
2. Heat with frequent agitation and boil for one minutes to completely dissolve the medium.
3. Cool to 45-50°C and add 20 mL of the Iodine-Potassium Iodide Solution to the prepared Tetrathionate Broth Base. If preparing solution, add 6 grams Iodine + 5 grams Potassium Iodide in 20 mL of purified water.
4. DO NOT REHEAT AFTER ADDING IODINE SOLUTION.
   Note: Do not add Iodine/Potassium Iodide Solution to tubes until just before inoculation. Chemical Tetrathionate inhibits by oxidation of Thiosulfate through the addition of Iodine just prior to use.

620 Lesher Place • Lansing, MI 48912
800-234-5333 (USA/Canada) • 517-372-9200
foodsafety@neogen.com • foodsafety.neogen.com

Record ID: FS-TSS-0255 Revision Number: 1.0 Effective Date: 2023-08-08 12:00 AM EDT

Test Procedure

For a complete discussion of the isolation and identification of *Salmonella*, refer to appropriate references.

Quality Control Specifications

Dehydrated Appearance: Powder is homogeneous, free flowing, and white to off-white.

Prepared Appearance: Prepared medium is milky white to slightly yellow-white and opaque.

Expected Cultural Response: Cultural response after enrichment in Tetrathionate Broth Base (with the Iodine/Iodide solution) following incubation aerobically at 35 ± 2°C and 43 ± 0.2°C and sub-cultured to MacConkey Agar or Tryptic Soy Agar for *Enterococcus faecalis*. Subcultures were incubated aerobically at 35 ± 2°C and examined for growth after 18 - 24 hours.

Microorganism	Approx. Inoculum (CFU)	Expected Results
Escherichia coli ATCC® 25922	> 1000	Complete Inhibition
Salmonella arizonae ATCC® 13314	10 – 100	Growth
Salmonella typhimurium ATCC® 14028	10 – 100	Growth
Salmonella enterica ATCC® 13076	10 – 100	Growth
Shigella flexneri ATCC® 12022	> 1000	Complete Inhibition
Enterococcus faecalis ATCC® 29212	> 1000	< 10 cfu, Satisfactory Inhibition

The organisms listed are the minimum that should be used for quality control testing.

Results

Refer to appropriate references for results.

Expiration

Refer to expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if the appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

Limitation of the Procedure

Due to nutritional variation, some strains may grow poorly or fail to grow on this medium.

Storage

Dehydrated culture media: Store sealed bottle containing the dehydrated medium at 2 - 30°C. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light by keeping container tightly closed.

References

1. **Hartman, P. A., and S. A. Minnich.** 1981. Automation for rapid identification of salmonellae in foods. J. Food Prot. **44:**385-386.
2. **Murray, P. R., E. J. Baron, M. A. Pfaller, F. C. Tenover, and R. H. Yolken (eds.).** 1995. Manual of clinical microbiology, 6th ed. American Society for Microbiology, Washington, D.C.
3. **Mueller, L.** 1923. Un Nouveau milieu d'enrichissement pour la recherche du bacille typhique et des paratyphiques. C. R. Soc. Bio. **89:**434. Paris.
4. **Kauffmann, F.** 1930. Ein kombiniertes anreicherungsverfahren fur typhus und-paratyphusbacillen. Zentralb. Bakteriol. Parasitenke. Infektionskr. Hyg. Abr. I orig. **113:**148.
5. **Kauffman, F.** 1935. Weitere Erfahrungen mit den kombiniereten Anreicherungsverfahren fur Salmonella bacillen. Z. Hyg. Infektionskr. **117:**26.

620 Lesher Place • Lansing, MI 48912
800-234-5333 (USA/Canada) • 517-372-9200
foodsafety@neogen.com • foodsafety.neogen.com

Record ID: FS-TSS-0255 Revision Number: 1.0 Effective Date: 2023-08-08 12:00 AM EDT

6. **Jones, F. T., R. C. Axtell, D. V. Rives, S. E. Scheideler, F. R. Tarver, Jr., R. L. Walker, and M. J. Wineland.** 1991. A survey of *Salmonella* contamination in modern broiler production. J. Food Prot. **54:**502-507.
7. **Barnhart, H. M., D. W. Dressen, R. Bastien, and O. C. Pancorbo.** 1991. Prevalence of *Salmonella enteritidis* and other serovars in ovaries of layer hens at time of slaughter. J. Food Prot. **54:**488-492.
8. **Eckner, K. F., W. A. Dustman, M. S. Curiale, R. S. Flowers, and B. J. Robison.** 1994. Elevated-temperature, colorimetric, monoclonal, enzyme linked
9. **Vanderzant, C., and D. F. Splittstoesser (eds.).** 2015. Compendium of methods for the microbiological examination of foods, 4th ed. American Public Health Association, Washington, D.C.
10. **Marshall, R. T. (ed.).** 1993. Standard methods for the examination of dairy products. 16th ed. American Public Health Association, Washington, D.C.
11. **United States Pharmacopeial Convention.** 2018. The United States pharmacopeia, 41st ed. The United States Pharmacopeial Convention. Rockville, MD.
12. **Federal Register.** 1991. Animal and plant health inspection service: chicken affected by *Salmonella enteritidis*, final rule, Fed. Regist. **56:**3730-3743.
13. **www.fda.gov/Food/ScienceResearch/LaboratoryMethods/BacteriologicalAnalyticalmanualBAM/default.htm.**
14. **Isenberg, H. D. (ed.).** 1992 Clinical microbiology procedures handbook, vol. 1, American Society for Microbiology. Washington, D. C.
15. **Knox, R., P. H. Gell, and M. R. Pollack.** 1942. Selective media for organisms of the *Salmonella* group. J. Pathol. Bacteriol. **54:**469-483.
16. **MacFaddin, J. F.** 1985. Media for isolation-cultivation-identification-maintenance of medical bacteria. Williams & Wilkins, Baltimore, MD.

620 Lesher Place • Lansing, MI 48912
800-234-5333 (USA/Canada) • 517-372-9200
foodsafety@neogen.com • foodsafety.neogen.com