

# KEEPER®

## The Ultimate Antimicrobial Product for Red Meat Processing & the RTE Industry



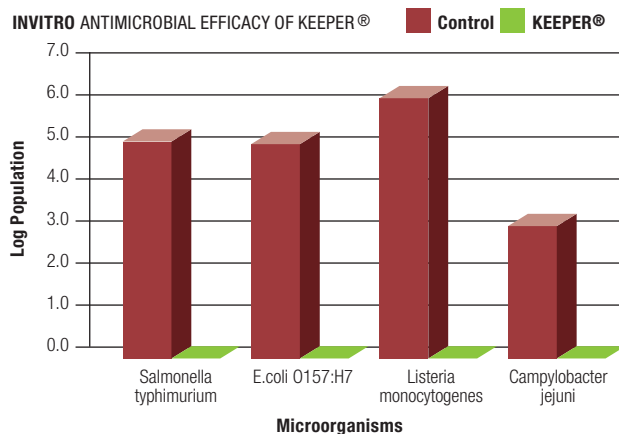
**Control microbial activity while promoting organoleptic advantages and shelf-life extension.**

KEEPER® is an FDA and FSIS approved [21 CFR 173.325, USDA FSIS Directive 7120.1 & FCN 450] antimicrobial agent that is used to eliminate pathogens, extend shelf-life and improve the quality of red meat products. KEEPER® is approved as acidified sodium chlorite (ASC) for the processing of red meat carcasses, parts and organs, and for processed, comminuted, and formed meats as a component of a spray or dip at concentrations up to 1200 ppm, and at or near a neutral pH.

Use KEEPER® as a processing aid to:

- Maximize microbial control
- Extend shelf-life
- Meet the required efficacy without altering or destroying the organoleptics of products
- Develop and maintain your reputation for quality products
- Gain confidence of USDA inspectors by using the most trusted antimicrobial intervention technology
- Upgrade your HACCP Plan

The KEEPER® antimicrobial intervention program is simple to use and is highly effective against *Salmonella*, *E. coli* 0157:H7 and many other pathogens of concern. KEEPER® is trusted by inspectors as part of a successful HACCP Compliance program.



KEEPER® was developed by Bio-Cide International, the world-wide leader in acidified sodium chlorite antimicrobial technologies. KEEPER® is activated at the time of use to produce the uniquely effective sanitizer, chlorine dioxide. KEEPER® is the most effective broad-spectrum antimicrobial available.

## Use KEEPER® to Avoid Expensive Recalls.



Exceptional Chemistry • Extraordinary People  
[www.bio-cide.com](http://www.bio-cide.com) • 2650 Venture Drive, Norman, OK 73069  
 405.329.5556 • 405.329.2681 fax • 800.323.1398  
 Bio-Cide International is ISO 9001:2008 certified



With Bio-Cide International's patented delivery technology, KEEPER® allows you to use the same chemistry from slaughterhouse to packaging.

# KEEPER® is the most effective, fast acting, broad-spectrum antimicrobial available.

KEEPER® has been shown to be more effective than other common sanitizers including peracetic acid and sodium hypochlorite (chlorine). KEEPER® provides a comprehensive antimicrobial intervention program.

- Fast-acting, broad spectrum antimicrobial activity
- Prevents formation of biofilm
- Low toxicity
- Low corrosion potential
- No chlorination or THM formation
- Effective over a broad pH range (1-10)
- FDA approved
- Can be used as dip or spray
- Can be used at or near neutral pH
- Resists neutralization due to organic load
- No adverse effect on taste
- No effect on nutritional quality
- Exempt from declaration on the food product label
- Approved for carcass, parts, comminuted and RTE red meat products
- KOSHER certified
- Cost competitive
- Organic Certified

## Competitive Advantage

Keeper Technology has distinct advantages over other ASC products via FCN 450 which allows Keeper® to be delivered up to 1200 ppm with no lower limit. FCN 450 also allows Keeper® to be applied at or near neutral pH promoting a favorable organoleptic advantage versus technologies employing their chemistry at less than a 2.9 pH. Furthermore, Keeper® allows activation of concentrate resulting in substantial savings in activation chemistry.

## Activation Systems

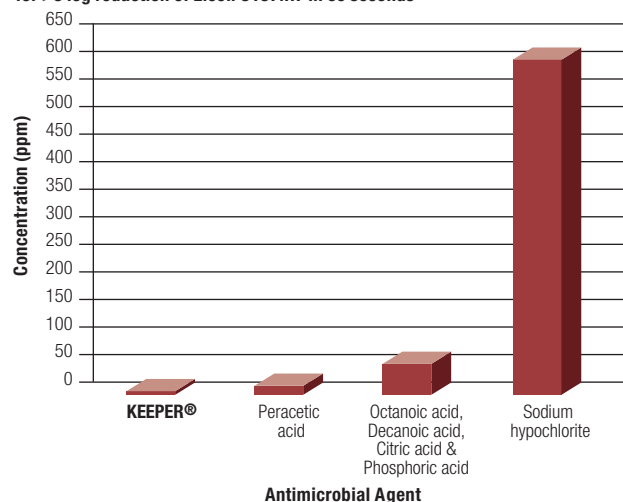
The active ingredient in KEEPER® is Acidified Sodium Chlorite that generates Chlorine Dioxide. To increase the speed of kill and efficacy of KEEPER®, the pH of the solution can be reduced with any Food Grade GRAS acid to acidify the Sodium Chlorite.

Activation may be accomplished manually for low-volume batch applications. BCI offers the hands-free, low cost, non-electric AANE™ unit and the on-line activation system OLAS™ Ti for continuous injection into water streams.

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CONCENTRATION OF ANTIMICROBIAL AGENTS  
for >5 log reduction of E.coli O157:H7 in 60 seconds



AANE™



OLAS™ Ti