Extremely powerful clean label antimicrobial liquid
Why develop Verdad Opti N80?

- **Historically,** meat processor’s would accept less-effective antimicrobials if clean label.
- **Currently,** meat processors desire long shelf life, food safety, superior quality and clean label.
Solving the challenge

What our customers are asking for:

- Consumer friendly labeling
- Lower sodium
- Longer shelf life
- Greater *Listeria* control
- Neutral to meaty flavor profile
- Yield enhancement
- No color / flavor impact
Verdad® Opti N80 Liquid

*Powerful clean label antimicrobial*

- Use Level: 2.5 – 4.0%
- Labeling: Cultured Sugar, Vinegar
- Liquid: 55 gallon drums
- Low sodium: 1200mg / 100g
- Concentrated proprietary mix of bioactive fermentation metabolites and organic acids.
Verdad® Opti N80 Targeted applications

RTE products with short shelf life.

- Turkey breast
- Roast beef
- Beef or Pork Pot Roast
- Roast Pork
- Cooked Sausage
- RTE strips or dices
- Sliced deli meats
Effect of Verdad Opti N80 on *L. monocytogenes*
Natural cured ham

*Listeria monocytogenes* count in cooked naturally cured ham

![Graph showing the effect of Verdad Opti N80 on *L. monocytogenes* in naturally cured ham.](image)

- **Red line**: Control (cured)
- **Pink line**: Control (natural nitrite source)
- **Green line**: 1.1% Verdad Opti N80 + natural nitrite source

*Time (days) at 4°C/39°F*

- **Log (CFU/g)**
Effect of Verdad Opti N80 on *L. monocytogenes*

Roast beef

*Listeria monocytogenes* control in cooked roast beef

- **Control**
- **1.3% Verdad Opti N80**
Corbion Listeria Control Model

Food characteristics

- Moisture: 70 %
- pH: 6.5
- NaCl: 6.7 %
- KCl: 0.7 %
- Sodium nitrite: 0.120 ppm (in total formulation)
- Water activity: 0.950

Storage conditions

- Temperature: 41 PF

Corbion Solution

- Water activity: 0.6 %

Microorganism data

- Initial level: 1 log CFU/g
- Maximum allowed level: 2 log CFU/g
- Graph scaling: days

Listeria growth in Test using CLCM

- Control
- CLCM 2012
- CLCM 2012 + Veratol Powder N0

About this graph

Time to 1 log outgrowth in days

- Control: 40 days
- CLCM 2012: 48 days
- CLCM 2012 + Veratol Powder N0: 58 days
- 95% CI: LCM 2012: 58 days
- 95% CI: CLCM 2012: 22 days

* The lines are based on specifically designed and validated Listeria challenge studies. According to these studies, 95% of growth is expected to be slower than the 95% line.

Contact Us

For additional support or further information on our latest product innovations, please contact us at info@corbion.com

Looking for a shelf-life alternative? Visit N15

Corbion

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Corbion’s shelf life tools

- CPC – Corbion Preservative Comparator
  - CPC tool shows percentage inhibition
  - Data on single strains generated in broth
  - Effect of pH, water activity, moisture and temperature can be changed

- Clostridium botulinum Time to Toxin Model