General Dairy Hygiene Principle:

1. Environmental Hygiene
   - Ensure walkthroughs and collecting yards are kept as clean and dry as possible.
   - Use automatic scrapers where possible.
   - Clean and disinfect farm vehicles and equipment regularly.
   - Drain and prevent pools or areas of standing water.
   - Foot and wheel baths
     - Filled with FAM 30, diluted 1:180 clean out and re-fill regularly.

2. Cleaning and disinfection of animal housing
   - Maintain farm buildings in good condition.
   - Cubicle bedding
     - Wash out and change regularly.
   - Disinfection
     - Remove all soiling before applying disinfectant.
     - Use FAM 30 diluted 1:180 for walkways, milking parlour, cabling pens, floors and stalls.

3. Biosecurity Programmes
   - Critical Control Points*
     - Every farm has different needs.
     - Identify each CCP in the farm.
     - Develop a plan to control the risk at each point.
     - Implement the plan, record the actions.
     - Audit the records.
     - Teach your staff to follow the plan.

*For further information see the NDFAS website www.ndfas.org.uk

Established in 1919, Evans Vanodine International plc is based in Preston, Lancashire, where the company is housed in a modern 100,000 square foot factory including extensive manufacturing and warehousing facilities and stands on a site of 5 acres.

Raw materials are received into stock, and each product batch is laboratory tested before being released into stock. Finished product samples are retained to ensure traceability through the products shelf life and beyond.

This commitment to Quality Assurance was recognised in 1980, when the company was awarded British Standard 5750 Part 2: 1987, Certificate No. 09535. This is equivalent to European Standard EN 29002 and International Standard BSEN ISO 9002:1994.

This is complemented by highly qualified and experienced Product Development Chemists and Microbiologists, using up to date equipment and protocols in a laboratory facility which holds UKAS accreditation for the testing of disinfectants.

The company’s own fleet of commercial vehicles, all of which have an Irish ADR for easy off-loading, guarantees a fast, reliable delivery service. Evans Vanodine also has global export capacity and currently supplies all international customers in 60 countries.

Whatever your requirements, you can rest assured that all Evans Vanodine products will arrive safely, in perfect condition and without delay.

All customers benefit from FREE Brochures, Wallcharts and up to date Product and Health & Safety Information.
Mastitis: Recognise the causes
The two main types of mastitis are:

1. Contagious
2. Environmental

Sources of bacteria

Contagious Sources
- Staphylococcus aureus - Mammary gland
- Streptococcus agalactiae - Udder, teat canal
- Streptococcus dysgalactiae - Chaps, cuts on teat skin, tonsils, carrier fly hydrotea irritants.

Environmental Sources
- Staphylococcus species eg. S. xylosus, S. epidermidis - Environment, human skin
- Streptococcus dysgalactiae - Chaps, cuts on teat skin, tonsils, carrier fly hydrotea irritants.
- Streptococcus uberis - Straw yards, legs, hind teats, lips of cows
- Bacillus species - Brewers grain, silage
- Pseudomonas aeruginosa - Dirty water

Effects on Milk

- Milk Quality – casein, lactose, butterfat, shelf life
- Milk Quantity
- Undesirable components - Lipase, plasmin, sodium, adverse milk flavours
- Increase in somatic cell counts
- Increase in bacteria in the milk (TBC) = higher bactoscan

Prevention - The 5 point plan

- Post milking teat dipping or spraying
  - Use approved teat disinfectants.
- Milking machine maintenance
  - Regular cleaning, regular servicing.
- Treatment of clinical cases
  - Early detection, appropriate therapy, hygiene procedures, records.
- Dry cow therapy
  - Abrupt drying off, appropriate therapy, hygiene procedures.
- Culling
  - Animals with repeating or persistent infections.

Progress of Mastitis control:
Somatic cell counts in England and Wales

5 point plan introduced in 1970:

<table>
<thead>
<tr>
<th>Year</th>
<th>SCC (1000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1945</td>
<td>200</td>
</tr>
<tr>
<td>1965</td>
<td>400</td>
</tr>
<tr>
<td>1970</td>
<td>600</td>
</tr>
<tr>
<td>1975</td>
<td>800</td>
</tr>
<tr>
<td>1980</td>
<td>1000</td>
</tr>
<tr>
<td>1985</td>
<td>1200</td>
</tr>
<tr>
<td>1990</td>
<td>1400</td>
</tr>
<tr>
<td>1995</td>
<td>1600</td>
</tr>
<tr>
<td>2000</td>
<td>1800</td>
</tr>
</tbody>
</table>

Data compiled from Milk Marketing Board Data and British Mastitis Conferences

Mastitis: Recognise the risks

- Mastitis is still a serious problem
- The requirements for milk quality are changing all the time
- Mastitis has a serious economic impact on dairy farm profitability
- A Mastitis prevention programme is essential

The Evans Vanodine Mastitis Prevention Programme:

1. Preparation
- Keep holding areas as clean as possible – free of dung, dirty water etc.
- Clean teats and udders with medicated wipe or disposable paper towel
- Fore milk
- Pre-dip with iodine based dip
- Dry wipe

2. Milking
- Wear clean apron, overalls.
  - Wear gloves, change at regular intervals or if damaged.
  - If gloves are not worn, wash hands or use hand disinfectant HANDSAN at regular intervals and especially after milking infected animals.
- Milk infected cows last
  - Keep infected milk or milk from antibiotic treated cows out of bulk tank.
- Wash clusters
  - Particularly after falling on the floor during milking disinfect with FAM 30 at 1:200 before using on a new animal.
- Administering antibiotic tubes
  - Wash hands thoroughly and wear fresh gloves.
  - Clean teat ends with medicated wipes, furthest two teats cleaned first.
  - Teats must be allowed to dry before tubing.
  - Take in the opposite order to cleaning i.e. nearest teats first.
  - Dip teats with teat dip and ensure that cows are standing for at least 30 minutes after tubing.

3. Teat Dipping/Spraying
- Immediately after milking
  - Dip or spray the full length of each teat.
  - Ensure the entire surface of the teat is covered.
  - Treat damaged or sore teats with an elder rub, cream or ointment.
- After milking
  - Keep cows standing for 30 minutes after milking.
  - Empty and wash teat dip cups.