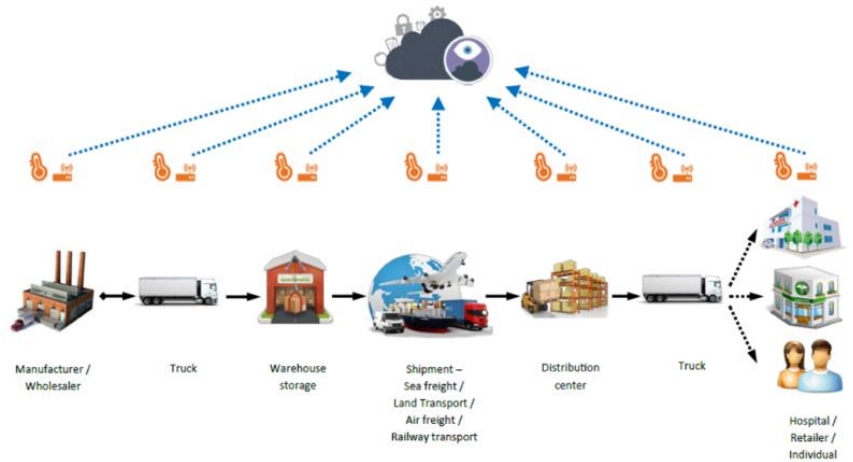# COLD CHAIN MONITORING SOLUTIONS

By: Douglas Wright, President

Monitoring of the temperature of sensitive shipments has become m o r e critical than ever before. While methods of shipping have become more reliable, your shipments may pass through several hands before arriving at the final destination making a permanent record all the more important.

- Despite the best efforts of carrier's shipments are still misplaced, misdirected or improperly stored.
- Shipments can be delayed by customs and potentially unpacked or stored incorrectly.
- Tighter regulatory requirements are demanding better record keeping for 21 CFR part 11, HACCP, ISO and other regulatory standards.
- The use of data loggers on shipments can lead to significant insurance reductions that will more than offset the cost of the data loggers in use.
- From a Quality Assurance perspective these records can allow you to improve your Cold Chain Management leading to improved quality control, reduced customer complaints and improved profit margins.

What are your options?
-Thermal indicators
-Single use (SU) data loggers
-Multiple use (MU) data loggers
-Wireless (RF) monitoring systems

We offer all 4 alternatives and they all offer unique advantages that can lead to a mixed use program to meet all needs. Here we have listed a brief outline of these with links to appropriate products, however, please keep in mind each customer is slightly different and this is simply meant to get you started. Please review the options and the related products you feel most appropriate to your company then contact us for a final consultation to discuss any questions and or concerns you might still have and any volume pricing.

THERMAL INDICATORS

Our simplest to use products and frequently used in combination with our data loggers are single use Thermal Indicator Labels. These will change color irreversibly upon exceeding a specified temperature or upon freezing allowing you to determine if temperature abuse has occurred. Unlike data loggers these will not determine when the abuse occurred, but are ideal in combination because of their low cost. Easy to use, you simply observe the color change, or absence of color change. However, it is critical to do this immediately upon receipt in order to verify if abuse occurred before receipt of product. One or two data loggers per shipment combined with Thermal indicators on each product or box will provide the ultimate in product safety assurance. This will provide time temperature validation for the entire load and temperature validation for each product, case or pallet (as you feel is most appropriate).

SINGLE USE DATALOGGERS

Products such as our industry leading Tempchecks provide easy to use monitoring of products throughout the shipping process. Simply pull the tab to start and view the chart at the end of the trip. For Tempchecks the time temperature data is printed directly on a serialized NIST traceable strip chart and no computer is needed to view the data. For Maxilog PDF, just plug into USB port and print PDF reports. Costs are inexpensive relative to insurance costs and premiums.

A step up are our c\temp L C D single use electronic data loggers. These are compact electronic data loggers with extra features such as programmable alarm limits and the ability to be downloaded to a computer at the end of the trip. For customers with more specialized needs such as: Alarm LEDs, higher accuracy, wider temperature ranges, electronic databases, 21 CFR part 11 compliance etc. these are the ideal solution.

MULTIPLE USE DATALOGGERS

We also supply a wide range of reusable data loggers for most standard shipping applications (temperature, humidity etc.) that can be ideal for customers with closed loop shipping. Can find these to be a cost effective solution.

Various models also allow for LCD displays, IP67 waterproof features, or the ability to use with temperature probes for internal product temperature monitoring .

WIRELESS MONITORING SYSTEMS

Wireless monitoring systems, are typically a very cost effective solution for facility, warehousing and production monitoring. We can also use these in combination with cell phones and GPS devices to monitor loads in transit live. The major advantage here is that you do not have to wait for the load to arrive with a data logger or changed thermal indicators to know your product has potentially spoiled. You will be able to monitor loads live from anywhere and can be proactive instead of reactive. If a potential problem such as rising temperatures is noticed you can get the carrier to take corrective measures before it is too late. Although more expensive it only takes one or two loads lost to pay for this type of system many times over. Yes insurance may cover the load, but insurance rises as you make claims. For shipping and receiving personnel we also have an extensive line of extremely versatile and cost effective Infrared thermometers, pocket thermometers and other manual monitoring devices to complete your ability to monitor the entire cold chain loop with full confidence. If you have any questions on these or other monitoring solutions please contact us at any time.