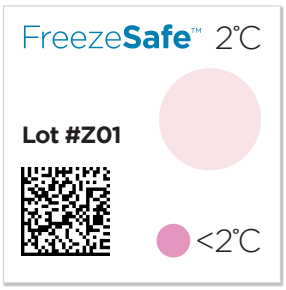
TEMPerature Products
EVERY DEGREE MATTERS™
Established 1997

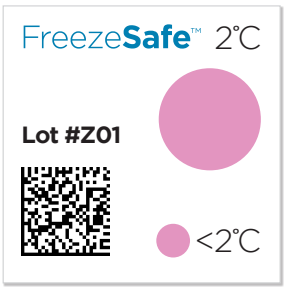
How to Use the FreezeSafe™

FreezeSafe descending temperature indicators visually alert users when a temperature breach has occurred so that the appropriate actions can be taken.

Unactivated



Unactivated



Activated

Using the FreezeSafe:

1. The FreezeSafe should be clear and may appear light magenta prior to use. It does not require arming prior to use.
2. Remove the FreezeSafe indicator and adhere to a clean, dry surface.
   a. The FreezeSafe should be located as close to the product being monitored as possible and where it will be visible to the receiver of the monitored shipment.
   b. The FreezeSafe can be adhered directly to the product being monitored or located inside the packaging.

Interpreting the FreezeSafe:

When the FreezeSafe is exposed to temperatures below the stated activation temperature, the indicator will turn from clear to magenta. Activation timings are based on time required at the lower tolerance of the stated threshold for a full color change. See FreezeSafe Overview for product tolerance based on age.

The FreezeSafe will respond according to the chart below:

Temperature Thresholds	Activation Time - 1 Year	Activation Time - 2 Years
0°C	Within 60 minutes	Within 120 minutes
2°C	Within 90 minutes	Within 120 minutes
5°C	Within 120 minutes	Within 120 minutes

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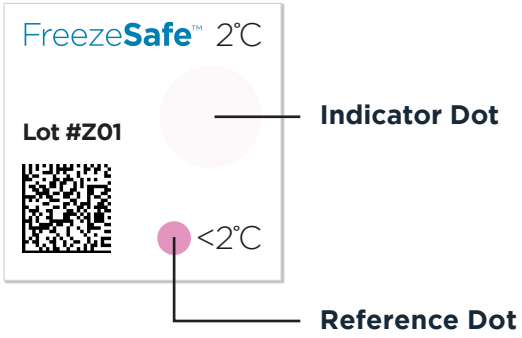
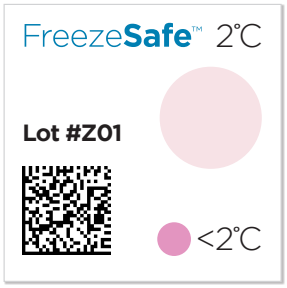
Interpreting the FreezeSafe (continued):

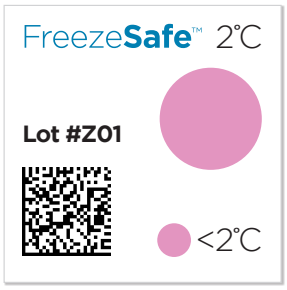
SpotSee freeze indication uses a color changing indicator dot (large) and a static reference dot (small). Freeze exposure beyond the time and temperature specification is shown when the indicator dot is as dark, or darker, than the reference dot.



An indicator dot may start clear, or light magenta, and show color darkening but remain lighter than the reference dot. This means the indicator saw exposure to the threshold temperature for less than the specified activation time.



Exposure to lower temperatures will result in faster coloration and exposure to temperature above the threshold, but still within tolerance, will result in slower coloration. FreezeSafe is a cumulative color change relative to exposure time.



Example: The 2°C threshold indicator dot will be as dark as the reference dot in 90 minutes at 1°C (within 1 year of date of manufacture). If exposed to 1°C for some period of time, say 60 minutes, the indicator dot will appear darker than prior to use and lighter than the reference dot.

Storage Recommendations:

FreezeSafe indicators should be stored out of direct light between 15°C and 25°C / 59°F and 77°F