

FreezeSafe QR

FreezeSafe™ QR is a remotely monitored freeze sensor enabled by smart phones to detect and report temperature excursions. When the FreezeSafe QR is scanned, sensor condition, time, date, location, serial number and image evidence are uploaded to the SpotSee Cloud for review and tracking. SpotSee's cloud platform displays individual sensor information and high-level condition insights to aid shipping and quality improvements. FreezeSafe QR goes from light magenta to dark magenta when unacceptably cold temperatures have been experienced.

Improve Decision Making

Remotely identify, analyze, and improve problem areas or lanes in the cold chain.

Visualize Cold Chain Performance

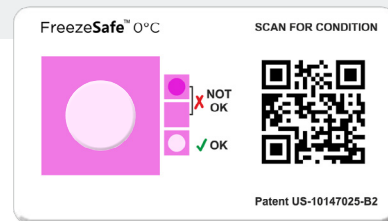
Cloud-based temperature excursion monitoring with real time insights of sensitive asset condition down to the patient level. When your patient or customer knows, so do you.

Compliance & Data Security

24/7 web-based cloud access to shipment temperature condition, built to comply with 21CFR Part 11 record keeping and user access requirements.

Adoption Made Easy

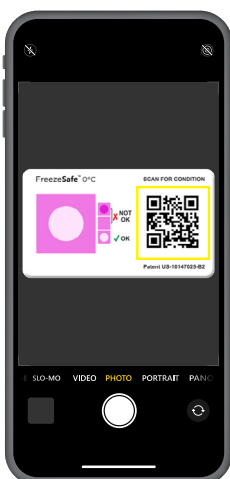
No app required. Designed for use by all cold chain personnel and more - from manufacturer all the way to the patient.



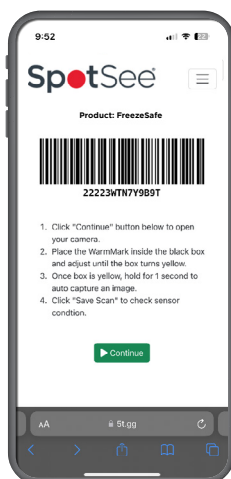
How It Works:

- FreezeSafe QR senses environmental temperature that your shipment is subject to
- Recipient scans QR code with smart phone to access condition information
- Real time scan data is sent to the cloud for shipper review

Initial QR Scan



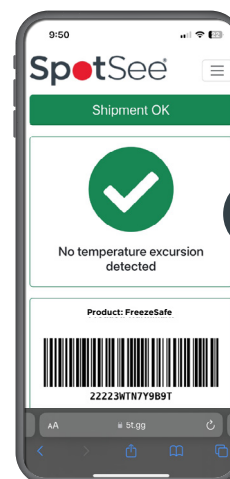
Serial Number & Scan Instructions



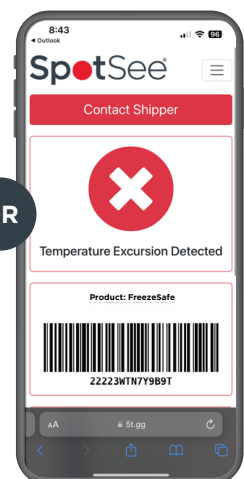
Vision System Check



Condition Information



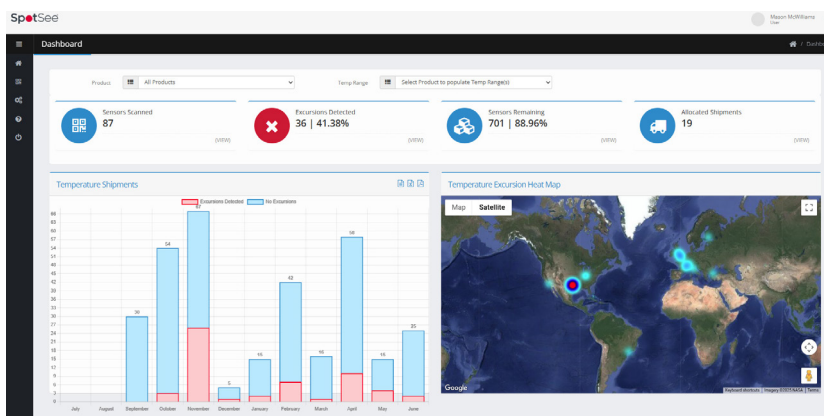
OR



SpotSee Cloud

A dedicated cloud platform designed for compatibility with low-cost, single-use temperature sensors utilized in life science cold chain applications. Track the temperature end-state of critical and high-volume assets at each step in the cold chain.

Dashboard:



Individual Sensor View:

The individual sensor view displays a detailed table of shipment records. The table includes columns for Temp Range, Sensor ID, Shipment ID, Shipment Condition, Sensor Image, Location, Location Accuracy, Last Scan, and History. The 'Shipment Condition' column uses color coding: green for 'OK' and red for 'Excursion'.

Temp Range	Sensor ID	Shipment ID	Shipment Condition	Sensor Image	Location	Location Accuracy	Last Scan	History
10°C/50°F	f222d8nc387	GF	OK	View Image		User declined	2025-07-03 02:19:10	History
5°C/41°F	f222d8nd64	GF	Excursion	View Image		User declined	2025-07-02 15:50:11	History
5°C/41°F	f222d8nc3g5	GF	OK	View Image	View Map	High	2025-07-02 07:21:13	History
5°C/41°F	f222d8nd80v	GF	OK	View Image		User declined	2025-07-01 12:08:08	History
5°C/41°F	f222d8nr3h4	GF	OK	View Image		User declined	2025-07-01 12:06:57	History

A to B Visibility

The data you need, when you need it. SpotSee Cloud and connected single-use temperature sensors provide shipment condition status from the end user (even patient). Ascertain the time, date, location, and condition of every sensor you deploy when scanned by a smart phone.

Simplify Data Collection

Gathering information for better decision making has never been easier. Blind spots in the cold chain exist in the last mile but now FreezeSafe QR fills the gap and provides visibility where there previously was none.

Package Level Monitoring

Criticality doesn't only apply to bulk shipments. FreezeSafe QR can be used at the carton or item level since it is a single-use, low-cost temperature sensor that doesn't require a return program and can remain on the item down to the patient for the ultimate peace of mind.

Key Specifications

Accuracy	1 Year: 0, 2, 5°C products are +/-1°C (2°F) 10, 15°C products are +/-2°C (4°F)	2 Years: 0, 2°C products are +1°C (2°F) / -2°C (3.6°F) 5°C products are +1°C (2°F) / -2.5°C (4.5°F) 10, 15°C products are +/-2°C (3.6°F)
Size	1.22" x 2.16" (31mm x 55mm)	
Storage Requirements	Store unused product away from direct light at 25°C / 77°F	
Shelf Life	2 years	

Interpreting the FreezeSafe:

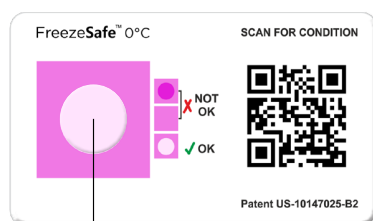
When the FreezeSafe QR is exposed to temperature below the stated activation temperature, the indicator will turn from light pink to magenta, light blue to dark blue, or light grey to dark grey based on activation temperature. Activation timings are based on time required at the lower tolerance for the stated threshold for a full color change.

The FreezeSafe will respond according to the chart below:

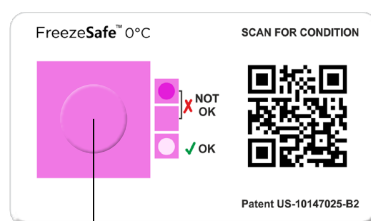
Temperature Thresholds	Visual Activation	Activation Time - 1 Year	Activation Time - 2 Years
0°C / 32°F	Light Pink to Magenta	Within 60 minutes	Within 120 minutes
2°C / 36°F	Light Pink to Magenta	Within 90 minutes	Within 120 minutes
5°C / 41°F	Light Pink to Magenta	Within 120 minutes	Within 120 minutes
10°C / 50°F	Light Blue to Dark Blue	Within 120 minutes	Within 120 minutes
15°C / 59°F	Light Grey Dark Grey	Within 120 minutes	Within 120 minutes

CUMULATIVE BELOW TEMPERATURE EXPOSURE OVER TIME →

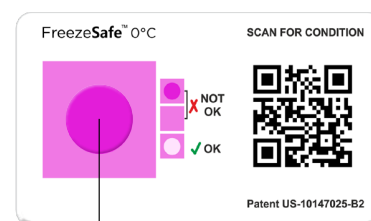
Time Below Temperature Reached



Circle is lighter than square = OK



Circle matches square = NOT OK



Circle is darker than square = NOT OK

QR Code is scanned upon receipt for automated condition status and cloud visibility.