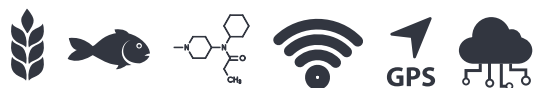# MS FOOD SAFETY

CHEMSENSE

REAL-TIME DETECTION AND DIAGNOSTIC SENSORS FOR FOOD SCREENING AND INSPECTION

GPS

CHEMSENSE is the world's first GPS tracking and positioning food contamination detector capable of vapor detection.Its award winning and patented HF-QCM nanotechnology sensors provide the latest food and beverage contamination screening capabilities including pesticides, herbicides and a wide range of chemical contaminants.

CHEMSENSE provides food manufacturers, QA, QC personnel and consumer businesses with the latest sample analysis capabilities uniquely developed to address the global problems of food contamination in specific operational requirements such as farm outdoors or manufacturing lines. These enhanced capabilities enable to address an expanded range of users required to inspect incoming raw materials, improve the process monitoring and control the food freshness and standardization.

CHEMSENSE enables to detect potential problems before the food is manufactured or consumed while reducing the dependency and waiting time for external laboratories.

ANTEVORTA
Sensing the Future – Now!
Inspect   Detect   Respond

ANTEVORTA is supported and managed by agro-food industry specialists, and product application engineers, giving them the capability to actively monitor alarms from detectors around the world.

Additionally, this smart sensor-to-cloud center is staffed with data scientists whose job is to monitor ongoing situations on behalf of MS Food Safety's customers across the globe.

Feature Highlights
- HF-QCM nanotechnology sensors
- Green and safe
- Sample analysis in 7 to 15 seconds
- High-throughput sampling per hour
- Self-calibration
- Remote monitoring and support
- Bluetooth connectivity
- Real-time cloud reporting
- Reduces dependency on external labs

Market Applications
- Food freshness evaluation
- Food contaminants screening
- Inspection of incoming raw materials
- Final product control
- On-line quality assurance and control
- Quality control standardization
- Improve process monitoring
- Food shelf-life assessment
- Consumer behavior
- Sensory research

ANTEVORTA
CHEMSENSE onboard processor automatically transmits the data to an Android or iOS application and includes all data logging, including time, date, and sample analysis for each alarm. A complete history of saved data and alarm files can be viewed, analyzed, downloaded, and printed at any time.

Technical Specifications

CHEMSENSE	
Technology	High-Frequency Quartz Crystal Microbalance Nanotechnology Sensors (HF-QCM) No gas carrier. No radioactive source.
Sample Collection	
Sample Collection Mode	Sample acquisition via a sniffing nozzle supplied with different types of sampling tips
Detection Capabilities	
Contaminants	Wide range of chemical contaminants and spoiled food * * Additional chemicals upon expandable contaminants' library ** Programmed substances depend on software version and regulatory authority
Sensitivity	Low parts per million (ppm) to billion (ppb) range. Programmable by users.
False Alarm Rate	Less than 3%
Analysis Time	7-15 seconds or less
System Interface	
Data Display	3.5" high-resolution, anti-reflective, color touch screen
Printer	Optional USB printer
Alarm Method	Configurable audio alarm and alarm resolution
Software Features	
Warm-Up Time	Less than 3 minutes
Alarm Type	Audio and visual with substance identification
Multi-Language Support	English, French, Spanish, Italian, Portuguese, Russian, Chinese, Korean, Japanese, Arabic, and more
Data Storage	Unlimited data logging, including date, time, analysis results and system status
Data Transfer	Micro USB 2.0. Optional Bluetooth and/or Wi-Fi
GPS	Detector tracking, positioning, data transmission and cloud reporting with ANTEVORTA software
Power	
Input Voltage	100-240V AC, 50-60Hz
Battery	12-V rechargeable Lithium-Ion battery with 6 to 8 hours of field operations; hot swappable for extended operating time
Environmental	
Operating Humidity	Less than 95% non-condensing
Operating Temperature	-4°F to +131°F (-20°C to + 55°C)
Operating Altitude	Up to 15,000 ft (4572 m)
Physical Features	
Weight	1.87 lbs (850 g), battery included
Dimensions	(L x W x H): 4.10" x 1.21" x 1.07" (10.40 x 3.08 x 2.71 cm)
Enclosure & Protection	
Case	Supplied with a ruggedized case
Safety	No hazardous parts and tamper-proof casing
Certification	
Product	CE Mark, EMC and FCC certification
Manufacturing Standards	ISO 9001:2015 manufacturing standards

MS FOOD SAFETY