MILWAUKEE INSTRUMENTS

# MICROPLASTICS IN WATER

## Why Environmental Conditions Matter

A practical guide to understanding how pH, salinity, conductivity, temperature, dissolved oxygen and natural-water conditions help explain the behavior and transport of microplastics in aquatic environments.




**PURPOSE.** An application-led educational resource that connects microplastic research with the supporting water-quality measurements used to characterize rivers, lakes, estuaries, coastal waters and other aquatic environments.

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milwaukee

## How to use this guide

Microplastic pollution is often discussed as if the plastic particle itself were the only variable that matters. In real waters, it is not. Once a particle enters a river, lake, estuary or coastal system, its behavior is influenced by the surrounding water chemistry, suspended solids, organic matter, microorganisms and hydrodynamics. These conditions can affect whether particles remain suspended, aggregate with other material, settle toward sediment, move through a catchment or interact with other contaminants.

This guide focuses on that environmental context. It does not describe a method for detecting or quantifying microplastics. Instead, it explains why supporting measurements such as pH, conductivity or salinity, temperature and dissolved oxygen are useful when characterizing the water in which microplastics are found. The objective is to connect routine water-quality measurement with a broader understanding of environmental transport and fate.

**CORE PRINCIPLE.** A microplastic count describes the particles found in a sample. Supporting water-quality measurements help describe the environmental conditions in which those particles were present. The two types of information answer different questions and should not be treated as substitutes for one another.

### Learning outcomes

- Explain what microplastics are and why their environmental behavior cannot be predicted from particle count alone.
- Recognize how pH, ionic strength, salinity, temperature, organic matter, suspended solids and hydrodynamics can influence microplastic mobility and aggregation.
- Understand why conductivity, salinity, dissolved oxygen and temperature provide supporting context rather than direct microplastic detection.
- Separate field characterization from laboratory identification and quantification of microplastics.
- Plan a defensible environmental measurement workflow that records both the target pollutant and the conditions surrounding it.

### What this guide does – and does not – measure

| Question | What answers it? |
|---|---|
| **How many microplastic particles are present?** | A validated microplastic sampling, preparation, identification and quantification method. |
| **What polymers or particle types are present?** | Polymer-specific or spectroscopic/microscopic identification methods appropriate to the study. |
| **What was the water chemistry at the sampling point?** | Supporting field or laboratory measurements such as pH, EC/salinity, temperature and other site-specific parameters. |
| **Could local conditions influence transport or aggregation?** | Interpretation of water chemistry, hydrodynamics, suspended material and particle properties together – not a single meter result. |

**SCOPE NOTE.** Milwaukee Instruments products featured later in this guide measure supporting water-quality parameters. They do not detect, identify or quantify microplastics.

## Microplastics at a glance

Microplastics are generally described as plastic particles or fibers smaller than 5 mm. They include both primary microplastics manufactured at small size and secondary microplastics formed when larger plastic items fragment. In aquatic environments they occur in many forms, including fibers, fragments, films, pellets and foams. Their environmental behavior depends not only on polymer identity but also on particle size, shape, density, aging and the conditions of the surrounding water.

| Factor | Why it matters environmentally |
|---|---|
| **Particle size** | Influences settling, suspension, aggregation, ingestion and the analytical method needed for detection. |
| **Shape** | Fibers, films, fragments and spheres experience different drag and settling behavior. |
| **Density** | Helps determine buoyancy, but effective density can change after biofouling or aggregation. |
| **Surface chemistry / aging** | Weathering can alter roughness, charge and chemical reactivity. |
| **Biofouling** | Microorganisms and organic coatings can change particle density and surface properties. |
| **Water chemistry** | pH, ionic strength, ion composition and natural organic matter can alter particle interactions and aggregation. |
| **Hydrodynamics** | Flow, turbulence, stratification and resuspension determine where particles move and accumulate. |

### Primary and secondary microplastics

Primary microplastics enter use already at small size, while secondary microplastics form as larger plastic items weather and fragment. In an environmental sample, however, origin is only one part of the story. Once particles enter natural waters, sunlight, abrasion, oxidation, biofilm growth and contact with mineral and organic material can progressively change their physical and chemical characteristics.

### Why “where was it measured?” matters

A concentration reported from a fast-flowing river, a stratified reservoir, a low-flow wetland, an estuary and coastal seawater cannot be interpreted as if the surrounding conditions were identical. Differences in flow, salinity, suspended sediment, organic matter and biological activity can alter the probability that microplastics remain in the water column, aggregate with other material, settle or become resuspended. Environmental context therefore matters both for interpretation and for designing comparable sampling campaigns.

## 1. From source to sink: why particles move differently

Microplastics can travel through connected freshwater and marine systems, but movement is not a simple one-way transfer from land to sea. Particles may be retained temporarily in riverbeds, floodplains, reservoirs and sediments; resuspended during high-flow events; transported farther downstream; or redistributed vertically in the water column. Reviews of freshwater transport emphasize that settling, aggregation, retention and resuspension are controlled by an interaction between particle properties, local hydrodynamics and water chemistry.

### Key processes

- Suspension – sufficiently small or low-density particles can remain in the water column, particularly under turbulent conditions.
- Aggregation – microplastics may collide and associate with other plastic particles, minerals, organic matter or biological material.
- Settling – aggregation or biofouling can increase effective particle size and density, promoting movement toward sediment.
- Retention – channel form, vegetation, sediment structure and low-flow zones can temporarily trap particles.
- Resuspension – changing flow conditions can return previously deposited particles to the water column.
- Cross-boundary transport – estuaries, tides, salinity gradients and stratification create additional transport pathways between freshwater and marine environments.

**INTERPRETATION RULE.** A high concentration at one point does not automatically mean that the site is the dominant source. Transport, retention and resuspension can separate the place where a particle is detected from the place where it originally entered the environment.

## 2. pH: a control on surface interactions

pH does not measure microplastic pollution, but it can influence the electrochemical environment around particles. Changes in pH can alter the surface charge of microplastics, minerals and natural colloids. Because electrostatic attraction and repulsion help determine whether particles remain dispersed or aggregate, pH can affect the stability and mobility of microplastic-containing suspensions.

Research reviews show that microplastic and nanoplastic aggregation can vary with pH, ionic strength, ion type, mineral particles and natural organic matter. The direction and magnitude of the effect are not universal: they depend on polymer surface properties, particle aging, the surrounding matrix and the specific ions or colloids present. This is why a pH result is best treated as environmental context rather than as a direct predictor of microplastic concentration.

### Why pH is worth recording

- It helps characterize chemical differences between sampling locations or dates.
- It provides context when interpreting aggregation experiments or field observations involving mineral and organic particles.
- It can help explain changes in the sorption behavior of some coexisting contaminants on microplastic surfaces.
- It supports comparison with other biological and chemical water-quality observations collected at the same site.

**AVOID A FALSE CONCLUSION.** Do not interpret a pH change as evidence that microplastic concentration must increase or decrease. pH can influence particle interactions, but field abundance is also shaped by sources, flow, particle properties, sampling design and many other variables.

## 3. Conductivity, ionic strength and salinity

Electrical conductivity measures how readily water carries electrical current through dissolved ions. It provides a practical field indicator of the ionic environment, while salinity describes dissolved salt content using a defined scale or method. These measurements are especially useful when a study crosses freshwater, brackish and marine conditions.

### Why ions matter

Charged surfaces in water are surrounded by an electrical double layer. Increasing ionic strength can compress this layer and reduce electrostatic repulsion between particles. Under some conditions, this promotes aggregation. Divalent and other multivalent ions can, under some conditions, promote aggregation more strongly than monovalent ions through charge screening and bridging. Experimental research therefore often reports differences in microplastic aggregation when salt concentration or ion composition changes.

### Freshwater to estuary

An estuary creates a particularly important transition because freshwater mixes with seawater while suspended sediments, dissolved organic matter and biological communities also change. Conductivity or salinity measurements help define where a sample lies along that gradient. They do not reveal the number of microplastics, but they make it possible to compare particle observations against a key environmental boundary.

**MEASUREMENT NOTE.** EC and salinity are related but are not interchangeable labels. Record the instrument mode, unit, temperature-compensation setting and reporting basis used in the study. TDS values calculated from EC depend on a conversion factor and should not be treated as a direct chemical analysis of dissolved solids.

## 4. Temperature: context for physical and biological change

Temperature influences water density and viscosity, reaction rates, microbial activity and oxygen solubility. It also changes seasonally and vertically in many water bodies. These effects make temperature an essential supporting variable in environmental fieldwork, even when it is not the primary parameter under investigation.

For microplastic research, temperature can matter indirectly through processes such as biofilm development, water-column stratification and the kinetics of chemical interactions. Because many other environmental variables change with season, a temperature difference should not be treated as a single-cause explanation for differences in microplastic abundance.

### Good comparison practice

- Measure temperature at the same depth and sampling point used for the associated water-quality observations.
- Record time of day, season and recent weather where these factors could influence the comparison.
- For stratified lakes, reservoirs or estuaries, avoid assuming that a surface temperature represents the entire water column.
- Keep temperature compensation settings consistent when comparing conductivity data across locations or dates.

## 5. Dissolved oxygen: biological and hydrodynamic context

Dissolved oxygen (DO) is not generally a direct control on microplastic concentration. Its value in this type of study is contextual: DO helps characterize biological activity, aeration, stratification and the balance between oxygen supply and consumption at the sampling location. Low DO can be associated with weak mixing, stratification or high oxygen demand; those same settings may also differ in sediment dynamics and biological activity from well-mixed water.

DO interpretation must account for temperature, pressure and salinity because oxygen solubility changes with all three. In estuarine or marine studies, salinity compensation is especially important when comparing concentration measurements across a gradient.

**DO NOT OVERINTERPRET.** A correlation between DO and microplastic abundance does not by itself demonstrate that one causes the other. Both can respond to shared environmental drivers such as flow, stratification, organic loading, season or sampling depth.

## 6. Natural organic matter, suspended solids and biofouling

Natural waters contain far more than dissolved salts. Clay minerals, suspended sediment, natural organic matter, proteins and microorganisms can all interact with microplastic surfaces. These materials may coat particles, bridge them into aggregates or change their effective density and surface charge. Biofouling can be particularly important because biological growth may make an initially buoyant particle more likely to sink.

These variables are not all measurable with the same routine Milwaukee instruments discussed in this guide, but they are essential for interpretation. A strong environmental study should therefore avoid reducing "water chemistry" to pH and EC alone. Supporting measurements must match the research question and the matrix.

### Why suspended material complicates comparisons

- A particle can be transported alone or attached to mineral/organic aggregates.
- Sampling and filtration steps can preferentially retain or lose certain particle sizes and aggregate forms.
- High suspended-solids events can change both microplastic transport and the practical performance of sampling equipment.
- Sediment and water-column measurements represent different environmental compartments and should not be merged without a defined method.

## 7. Microplastics as surfaces for other contaminants

Microplastics can interact with substances already present in the environment, including some organic pollutants, metals and biological material. Sorption depends on both the properties of the contaminant and the properties of the plastic surface. Polymer type, particle size, aging and functional groups matter; so do environmental conditions such as pH, salinity, ionic strength, temperature and dissolved organic matter.

This does not mean that every microplastic particle is a dominant contaminant carrier or that the presence of microplastics automatically increases exposure. The relative importance of microplastics compared with natural particles, sediment and dissolved phases varies by contaminant and environment. The useful lesson for measurement is narrower: when studying contaminant–microplastic interactions, the surrounding water chemistry must be documented because it can alter sorption and desorption behavior.

**LANGUAGE MATTERS.** Use "can influence," "may affect," or "has been shown under defined conditions" unless a study demonstrates a specific effect in the matrix being discussed. Avoid turning laboratory mechanisms into universal field claims.

# MEASUREMENT KNOWLEDGE

## Supporting parameters: what each one can tell you

| Parameter | Useful environmental context | What it does not tell you |
|---|---|---|
| **pH** | Acid–base conditions; surface-charge context; comparison between sites and events. | Microplastic concentration, polymer type or source. |
| **EC / conductivity** | Overall ionic environment and changes in dissolved-ion load. | Which ions are present or whether a change is caused by microplastics. |
| **Salinity** | Freshwater–brackish–marine gradient and salt content context. | Particle abundance or polymer identity. |
| **Temperature** | Seasonal/vertical conditions; physical and biological context; compensation for other measurements. | A direct explanation for microplastic distribution. |
| **Dissolved oxygen** | Aeration, biological demand, stratification and habitat context. | A direct measure of plastic pollution. |
| **Turbidity** | Optical particle-scattering conditions and rapid changes during runoff or resuspension events. | Particle mass, polymer identity or microplastic concentration. |
| **Suspended solids** | Method-defined particulate mass/concentration context for particle-rich waters and transport events. | What fraction of the suspended material is plastic. |

## Parameter deep dive: pH

pH is logarithmic, so a one-unit difference represents a tenfold change in hydrogen-ion activity. In microplastic studies, the most relevant point is not that one pH value is inherently "better" or "worse," but that pH changes the chemical environment in which particle surfaces, minerals, organic matter and dissolved species interact.

### Good measurement practice

- Calibrate with fresh buffers that bracket the expected sample range.
- Rinse between samples and avoid cross-contamination from high-salinity or highly buffered waters.
- Measure unstable field parameters as close as practical to the sampling point and time.
- Record calibration status, temperature, sampling depth and location with the result.
- Store and maintain the pH electrode according to the electrode instructions; do not store a glass pH electrode in deionized water.

## Parameter deep dive: EC and salinity

Conductivity is strongly temperature dependent. Automatic temperature compensation normalizes the electrical response to a reference temperature, but it does not make different waters chemically identical. When a study crosses a large salinity range, record the actual measurement mode and reporting basis – for example µS/cm, mS/cm, Practical Salinity (dimensionless; often displayed as PSU by instruments) or g/L – rather than converting values casually after sampling.

### Good measurement practice

- Use a conductivity standard close to the expected working range where practical.
- Keep temperature-compensation settings consistent across a comparative study.
- Rinse the probe between freshwater and saline samples to reduce carryover.
- Document any TDS conversion factor if TDS is reported from EC rather than measured by an independent gravimetric method.
- Use direct salinity reporting when salinity itself is the environmental variable of interest.

## Parameter deep dive: dissolved oxygen

Dissolved oxygen concentration depends on temperature, barometric pressure and salinity. A DO study therefore needs more than a single ppm value. The instrument setup and compensation method should match the site conditions, and adequate water movement across the probe must be maintained when required by the sensor technology.

### Good measurement practice

- Calibrate according to the instrument method and verify membrane or sensor condition before fieldwork.
- Apply altitude/pressure and salinity compensation where the instrument and method require it.
- Avoid introducing bubbles during sampling and measure promptly when conditions can change rapidly.
- Record depth and stratification context for lakes, reservoirs, estuaries and coastal profiles.
- Interpret DO together with temperature and salinity rather than as an isolated ecological score.

# BUILDING A DEFENSIBLE FIELD STUDY

A useful monitoring design connects each measurement to a hypothesis, location, time and sampling method. Microplastic work is particularly sensitive to contamination control and methodological differences, so supporting water-quality measurements should be integrated into the same sampling plan rather than collected as disconnected observations.

## Recommended field record

| Record | Why keep it |
|---|---|
| **Site ID and coordinates** | Ensures repeatability and correct spatial comparison. |
| **Date and time** | Links observations to tides, flow, weather and seasonal conditions. |
| **Sampling depth / matrix** | Distinguishes surface water, depth profile, sediment or other compartments. |
| **Weather and recent events** | Rainfall, flooding, discharge or drought can change transport conditions. |
| **Flow / hydrodynamic context** | Supports interpretation of retention, resuspension and transport. |
| **pH, EC/salinity, temperature, DO** | Characterizes key supporting water-quality conditions. |
| **Instrument ID and calibration status** | Supports traceability and comparison between campaigns. |
| **Microplastic sampling method** | Mesh/filter size, volume, preparation and contamination controls determine comparability. |

## Contamination control is part of the measurement

Microplastic analysis is vulnerable to contamination from clothing fibers, laboratory air, plastic sampling equipment and handling materials. The exact controls depend on the analytical method, but field blanks, laboratory or procedural blanks, minimized use of plastic sampling materials, covered samples and documented handling practices are common elements of defensible studies. When plastic gear cannot be avoided, it should be cleaned, inspected and characterized as part of the contamination-control plan. Supporting meter probes and sample containers must also be cleaned between sites to avoid carrying material or chemistry from one location to the next.

### Comparing sites and seasons

- Use the same sampling matrix, depth, volume and size cut-off wherever the objective is direct comparison.
- Separate genuine environmental change from method change – a different mesh size can produce a different particle count even at the same site.
- Repeat supporting parameters under comparable conditions and document instrument settings.
- Treat storm events, droughts, tidal phases and source changes as explanatory context, not background noise.
- Where possible, combine repeated measurements with hydrological or operational data rather than relying on single spot samples.

**A MEASUREMENT IS ONLY COMPARABLE WHEN THE METHOD IS COMPARABLE.** Two microplastic concentrations – or two EC, pH or DO results – can look numerically similar while representing different sampling methods, depths, units, compensation settings or environmental conditions. Record enough metadata to make the comparison defensible.

## GOOD PRACTICE

### Common interpretation errors

| Error | Why it is risky | Better practice |
|---|---|---|
| **Treating EC as a pollution-specific test** | Different ion mixtures can produce similar conductivity. | Use EC as an ionic trend indicator, then identify causes with selective analysis. |
| **Assuming high salinity means more microplastics** | Salinity can influence interactions but source loading and transport remain decisive. | Use salinity to characterize the gradient, not predict abundance by itself. |
| **Calling turbidity "microplastic concentration"** | Turbidity responds to all light-scattering particles. | Use a validated microplastic identification method for plastic-specific results. |
| **Inferring causation from correlation** | Two parameters may respond to a third driver such as flow or season. | Use repeated sampling, controls and mechanistic evidence before making causal claims. |
| **Ignoring particle-size cut-offs** | Counts depend strongly on the size range that the method can capture. | Report mesh/filter size and analytical detection limits with results. |
| **Comparing different matrices directly** | Water-column and sediment concentrations use different bases and represent different compartments. | Keep matrices distinct unless a defined model or method links them. |

## Measurement quality: make supporting data defensible

### Before measurement

- Confirm that the instrument range, probe and unit are appropriate for the expected water conditions.
- Inspect probes, membranes, cables and batteries before leaving for the field.
- Use fresh, traceable calibration standards and record calibration checks.
- Define the sampling depth and sequence so that supporting parameters represent the same water mass as closely as practical.

### During measurement

- Avoid cross-contamination between sites by rinsing probes and containers according to the study protocol.
- Allow electrochemical readings to stabilize and record the result with its unit and temperature.
- Minimize unnecessary delay between microplastic sampling and supporting water-quality measurements.
- Record unusual conditions such as visible debris, algal blooms, strong currents, recent rainfall or wastewater discharge.

### After measurement

- Clean and store probes according to the sensor requirements.
- Transfer results with site metadata, calibration status and instrument ID.
- Flag measurements collected under nonstandard or compromised conditions rather than silently merging them with the main data set.
- Review outliers against field notes before deciding whether they represent error or real environmental change.

# PORTFOLIO GUIDE

## Milwaukee Instruments for supporting environmental water-quality measurements

The products below can help characterize pH, conductivity/salinity, temperature and dissolved oxygen around an environmental sampling programme. Product inclusion indicates measurement capability only. These instruments do not detect or quantify microplastics, and the appropriate instrument, probe, method and quality-control plan must be selected for the study.

**SELECTION PRINCIPLE.** Start with the environmental parameter and the required evidence level – rapid field check, logged survey, laboratory verification or continuous trend – then select the instrument. Do not select a meter first and build the study around whatever it happens to measure.

## pH and temperature



PROFESSIONAL PORTABLE

### MW102 PRO+ 2-in-1 pH and Temperature Meter with ATC

**Measures** pH and temperature with automatic temperature compensation; pH accuracy ±0.02 pH.

**Where it fits** Focused spot measurements during field sampling and controlled comparative studies.

**Why choose it** A straightforward portable system with automatic one- or two-point pH calibration and a separate temperature probe.

**Selection note** Confirm that the supplied electrode is appropriate for the sample matrix. Low-conductivity natural waters and unusual matrices can require additional method controls.



ADVANCED PORTABLE

### MW106 MAX Waterproof pH/ORP/Temp Logging Portable Meter

**Measures** High-resolution pH, mV/ORP with a compatible ORP electrode, temperature and up to 1,000 logged records.

**Where it fits** Detailed field investigations and time-series surveys where logging, calibration records and traceability are useful.

**Why choose it** IP67 housing, up to five-point automatic pH calibration, GLP functions and downloadable logging.

**Selection note** An ORP electrode is not supplied with the meter. Use ORP only where the research question justifies it, and verify probe suitability for the matrix.

## Conductivity, TDS, salinity and temperature



RAPID FRESHWATER

### EC59 PRO Waterproof 3-in-1 Conductivity / TDS & Temperature Tester with Replaceable Probe

**Measures** EC from 0 to 3999 µS/cm, calculated TDS from 0 to 2000 ppm and temperature.

**Where it fits** Rapid conductivity screening and routine spot checks in freshwater where the required accuracy is compatible with ±2% full-scale performance.

**Why choose it** A compact waterproof tester with 1 µS/cm EC resolution and a replaceable probe.

**Selection note** The EC range stops at 3999 µS/cm and accuracy is specified as ±2% full scale. Confirm that this performance is adequate for the study; it is not a full brackish-to-marine salinity instrument.



ADVANCED PORTABLE

### MW306 MAX EC/TDS/NaCl/Temp Logging Portable Meter

**Measures** Wide-range EC, calculated TDS, salinity in %NaCl, Practical Salinity (displayed as PSU), and Natural Seawater (g/L), temperature and logging.

**Where it fits** Freshwater-to-estuary surveys, saline waters and logged conductivity or salinity investigations across broad ranges.

**Why choose it** A 4-ring conductivity probe, wide autoranging EC capability, multiple salinity reporting modes and downloadable logs.

**Selection note** Keep the selected mode and temperature-compensation settings consistent. Practical Salinity is dimensionless even though the instrument displays PSU; do not treat PSU, g/L and % NaCl as interchangeable units.

## Dissolved oxygen



PROFESSIONAL PORTABLE

### MW600 PRO Dissolved Oxygen Meter

**Measures** Dissolved oxygen from 0.0 to 19.9 mg/L with automatic temperature compensation from 0 to 30°C.

**Where it fits** Routine freshwater DO spot checks and field surveys where a simple dedicated DO workflow is sufficient.

**Why choose it** A focused polarographic DO meter with manual two-point calibration and a refillable membrane probe.

**Selection note** The MW600 does not provide salinity or altitude compensation. For saline waters, high-altitude sites or more demanding profiles, use an instrument with the required compensation functions.



ADVANCED PORTABLE

### MW605 MAX Waterproof Galvanic Dissolved Oxygen Meter With Automatic Calibration

**Measures** DO from 0.0 to 45.00 mg/L and 0.0 to 300.0% saturation, temperature, logging, altitude compensation and manual salinity compensation.

**Where it fits** Environmental profiles and comparative studies where salinity/altitude compensation, logging and a wider DO range are important.

**Why choose it** A galvanic probe requires no polarization time; the meter adds IP67 protection, automatic temperature compensation and up to 1,000 logs.

**Selection note** Set altitude and salinity compensation to match the site and record those settings with the results. Actual measurement limits are constrained by the supplied probe.

## Continuous context



CONTINUOUS MONITOR

**MC811 MAX pH/EC/Temp Monitor**

**Measures** Continuous display of pH, EC and temperature; EC range 0.00 to 5.00 mS/cm.

**Where it fits** Continuous trend monitoring in controlled or protected installations, controlled water systems or side-stream environmental sampling stations.

**Why choose it** Provides 24/7 visual tracking of three supporting water-quality parameters from one fixed platform.

**Selection note** The EC range is not suitable for brackish or marine water. Confirm enclosure, power, probe placement, fouling control and site suitability before environmental deployment; continuous monitoring does not replace representative microplastic sampling.

## A better picture of the water around the particle

Microplastic monitoring is not only a question of detecting and counting particles. To understand where particles move, where they accumulate and how they interact with the surrounding environment, researchers need context. pH can help describe surface-interaction conditions. Conductivity and salinity define the ionic environment and freshwater–marine transitions. Temperature provides physical and biological context. Dissolved oxygen can reveal mixing, stratification and biological demand. Suspended solids, organic matter, flow and biofouling add further layers that no single instrument can replace.

The most defensible approach is therefore multi-parameter in the broad scientific sense: measure the target pollutant with an appropriate analytical method, characterize the surrounding water with supporting parameters, and record enough metadata to interpret both. Better environmental decisions begin not with more numbers, but with measurements that answer clearly defined questions.

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## Measure the environment around the pollutant.

Milwaukee Instruments supports professional digital measurement from field checks to advanced portable and continuous monitoring.