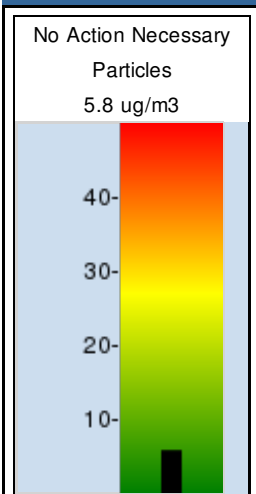


Monitor: 32520
Report ID: 254191
03/14/17 11:35 AM

This report displays our findings about the air quality in your home, and offers recommendations to help you make informed decisions about your family's health, comfort and safety. If you have additional questions, please visit www.airadviceforhomes.com.

HEALTH

Particles



Health Concerns Particles are generally a cause for concern when daily average levels are above 10 ug/m3. Particles are known to trigger asthma and allergy symptoms. At levels above 35 ug/m3, they can harm normally healthy adults by causing emphysema and diminished lung capacity. Children, the elderly, and pregnant women are more susceptible.^a

What We Found In Your Home Particle levels were below 10 ug/m3.

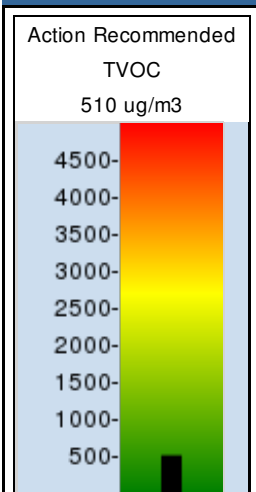
Potential Causes Particles can build up to unhealthy levels due to three primary causes:

- Activities in the home
- Presence of excessive particulate sources
- Heating and cooling system issues

Recommended Actions

- Inspect and clean duct work
- Use the exhaust fan during cooking
- Install UV light in cooling coil to prevent mold

Chemicals



Health Concerns Chemical pollutants are generally a cause for concern when average levels are above 500 ug/m3 (micrograms per cubic meter of air). Chemical pollutants are known to trigger asthma and allergy symptoms. At moderate levels, eyes and nasal passages can be irritated. Some people can experience nausea and headaches. At very high levels, they can even affect normally healthy adults by overworking the liver and kidneys. Children, the elderly, and pregnant women are more susceptible.^b

What We Found In Your Home Chemical pollutant levels were between 501-3000 ug/m3.

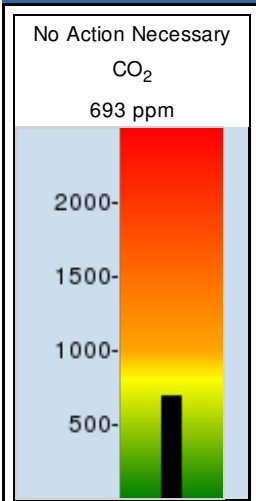
Potential Causes Levels can build up in your home's air due to usage of chemical products and heating/cooling system issues:

- Sources: Off-gassing from building materials, carpeting, furniture and other synthetic materials, fuel fumes, scented products and air fresheners, personal care products, household products such as paint, glue, and plastics
- Possible heating & cooling issues: Lack of fresh air introduced into home (either inadequate mechanical ventilation or none present), no chemical pollutant removal equipment

Recommended Actions

- Install an energy efficient ventilation device, such as a heat or energy recovery ventilator (ERV or HVR)
- Install a VOC reduction device such as a photocatalytic oxidizer (PCO)
- Minimize use of VOC sources such as air fresheners, open cleaning fluids, or candles

Carbon Dioxide



Health Concerns Carbon dioxide (CO₂) levels above 750 ppm (parts per million) are a cause for concern. At higher levels, CO₂ inside a home can contribute to what the EPA terms "sick building syndrome," which leads to fatigue, headache, breathing difficulties, nausea, strained eyes and itchy skin. At even higher levels, CO₂ can cause asphyxiation as it replaces oxygen in the blood. CO₂ poisoning, however, is very rare. The U.S. EPA recommends a maximum concentration of CO₂ of 1000 ppm (0.1%) for continuous exposure.^c

What We Found In Your Home Carbon dioxide levels were below 750 ppm.

Potential Causes Elevated carbon dioxide levels can occur in the home due to source causes, home heating & cooling system issues, or both:

- Sources: 'Tight' (well weatherized and energy-efficient) home construction without adequate ventilation, common human & household activity (breathing, and burning candles, gas, wood, or other combustion)
- Possible heating & cooling issues: Lack of supplied fresh air (no ventilation), malfunctioning ventilation, ventilation shut off by occupant, HVAC equipment needs repair or service

Recommended Actions

- Use the exhaust fan during cooking
- Inspect combustion sources, such as fireplaces, gas heaters, or gas stoves, for proper ventilation

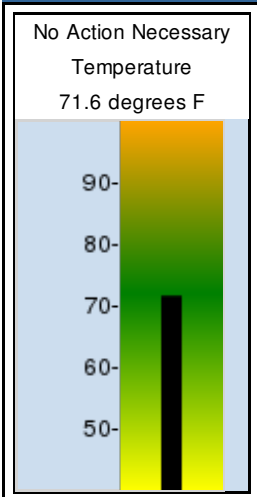
a. Source: American Lung Association, Environmental Protection Agency (EPA); Indoor Air Quality Association.

b. Sources: European Union (EU); Leadership in Energy & Environmental Design (LEED); Environmental Protection Agency (EPA).

c. Source: EPA, Minnesota Dept of Health.

COMFORT

Temperature



Comfort Concerns Comfortable temperatures fall within the range of 68 and 75 degrees F. In addition temperatures are most comfortable when steady, with fluctuations less than 1-1/2 degrees. Ideally, temperature should be constant between all areas of the home. People experience a chilling or 'goose bump' sensation when temperatures are uneven and when air blows quickly across the surface of the skin.^a

What We Found In Your Home The temperature level was inside the normal range.

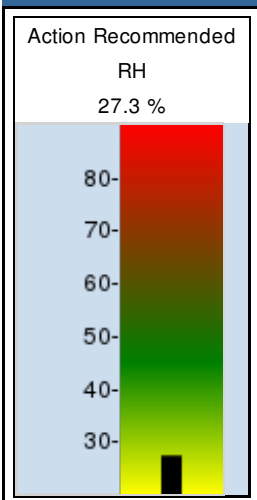
Potential Causes Fluctuating and/or low and high temperatures can occur due to structural causes and/or home heating & cooling system issues:

- Structural causes: Poor insulation, inadequate weatherization (for example, poorly sealed windows and doors create drafts)
- Possible heating and cooling issues: Thermostat poorly located (in an area where air supply falsely influences readings), uneven heating or cooling from room to room due to imbalanced ductwork or inadequate or poorly sized equipment

Recommended Actions

- Upgrade to programmable thermostat for energy efficiency

Relative Humidity



Comfort Concerns According to the ALA the relative humidity should be 50 %, with levels in the 40-50 % range offering the most comfort possible. The amount of moisture in the air influences both health and comfort. When air is too dry in the winter, people typically feel colder. Also, respiratory passages can become irritated and prone to infection.^b

What We Found In Your Home The relative humidity levels were outside the normal range.

Potential Causes Fluctuating and/or low and high relative humidity can occur due to structural causes and/or home heating & cooling system issues:

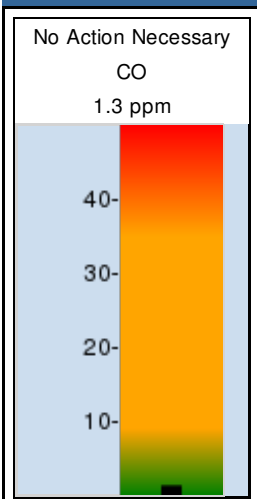
- Structural causes: Standing water in basement or other areas, leaky pipes/faucets, inadequate ventilation in winter (causes moisture build-up inside), and home is under "negative pressure" (pulls dry or moist air in from outside)
- Possible heating & cooling system issues: no or inadequate humidification or ventilation, improperly sized cooling system (prevents dehumidification), HVAC equipment needs repair (condensate drain or coil malfunctioning)

Recommended Actions

- Install a humidification or dehumidification system
- Operate bathroom fans
- Use the exhaust fan during cooking

SAFETY

Carbon Monoxide



Safety Concerns Carbon monoxide is a cause for concern when average levels are 6 ppm or higher. When levels are above 25 ppm, immediate action should be taken. Carbon monoxide is a colorless, odorless, poisonous gas produced by combustion. When people are exposed to relatively low levels, it can cause headaches and nausea. At relatively high levels it can cause memory problems and ultimately death.^c

What We Found In Your Home Carbon monoxide levels were below 6 ppm.

Potential Causes Elevated carbon monoxide can occur due to source causes, home heating & cooling system issues, or both:

- Sources: Fireplaces, cooking, combustion appliances (water heater, gas dryer, stove), vehicles running in attached garage
- Possible heating & cooling system issues: Cracked heat exchanger on furnace, leaking chimney or vent, inadequate exhausting of a combustion appliance (water heater, gas dryer, stove)

Recommended Actions

- Install or check CO alarm

a. Source: American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE).

b. Source: American Society of Heating, Refrigeration and Air Conditioning Engineers; Health Canada; Washington Department of Health.

c. Source: US Environmental Protection Agency; World Health Organization (WHO); Indoor Air Quality Association (IAQA).

Indoor Air Quality Recommendation

Still smelling breakfast at dinner time?

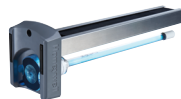
If you have lingering odors in the home, it's a sign that more ventilation is needed to bring in fresh air and remove stale air. Honeywell ventilation and air-cleaning products offer energy efficient home options that help get odors out and fresh air in.



SAVE MORE

Ask your heating and cooling professional about saving more with Honeywell connected thermostats.

*Honeywell backs all of these products with an industry-leading **5-year warranty**.*



24V UV Air Purifier with AirBRIGHT™ Odor Absorption

- An affordable solution for improving indoor air and protecting your equipment
- Deactivates airborne and surface contaminants like mold, bacteria and viruses
- Neutralizes household odors
- For both coil and air treatment



TrueFRESH™ Balanced Ventilation System

- Brings fresh air into the home, even when windows are closed
- Recovers up to 70% of the heat (in cold weather) or cooling (in warm weather) from the air leaving the home
- Energy Recovery Ventilator (ERV) — Helps reduce the amount of humidity coming in from the outside air on humid days
- Cold Climate Model (HRV) — Helps reduce window condensation and excess moisture
- Low maintenance — Set it and forget it programming



Fresh Air Ventilation System

- Affordable and effective whole house ventilation
- Works with your heating and cooling system to deliver outside air to your home
- Low maintenance — Set it and forget it programming

Indoor Air Quality Recommendation

Your home needs to stay properly hydrated in order to maintain the health and comfort of those living in it. Air that is too dry soaks up moisture from everything it touches in your home — your woodwork, wood floors and furnishings — not to mention giving you dry skin, chapped lips, dry nasal passages and a jolt of static electricity. Honeywell humidification systems can ensure that your home and family are getting just the right amount of moisture.



SAVE MORE

Ask your heating and cooling professional about saving more with Honeywell connected thermostats.

*Honeywell backs all of these products with an industry-leading **5-year warranty**.*



Electrode Humidifier

- Efficient, on-demand humidification
- Disposable canisters for easy maintenance with no special tools required
- Quiet operation means it won't interrupt your day-to-day activities



TrueEASE™ Fan-Powered Humidifier

- Whole-house evaporative humidifier with little to no maintenance needed
- Humidified air feels warmer so you'll be able to turn down your thermostat for energy savings
- Eco-friendly — Monitors the dryness in your home and only runs water and air through the system when humidity is needed



TrueEASE™ Evaporative Humidifier

- Whole-house evaporative humidifier (available in Basic or Advanced models)
- Humidified air feels warmer so you'll be able to turn down your thermostat for energy savings
- Installed out of sight, out of mind