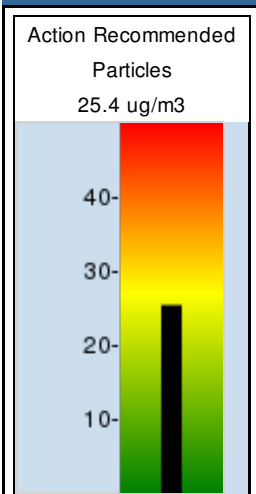


Monitor: 32212
Report ID: 227907
02/23/16 10:00 AM

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 between 11-35 ug/m3.

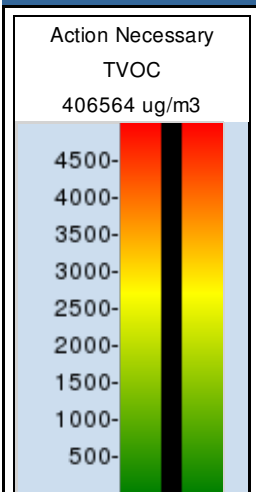
Potential Causes Particles can build up to unhealthy levels due to three primary causes:

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

Recommended Actions

- Replace filters or upgrade filtration system
- 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 above 3000 ug/m3.

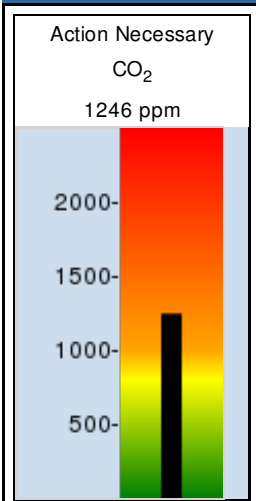
Potential Causes Levels can build up in your home's air due to usage of chemical products and heating/cooling system issues:

- 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 above 1000 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

- Install an energy efficient ventilation device, such as a heat or energy recovery ventilator (ERV or HVR)
- Use the exhaust fan during cooking
- Inspect combustion sources, such as fireplaces, gas heaters, or gas stoves, for proper ventilation

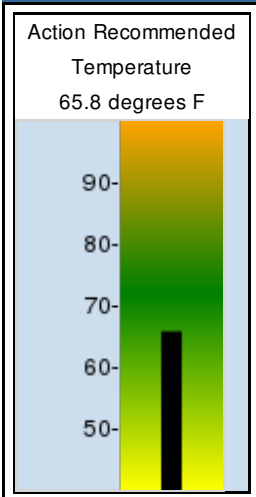
a. Source: American Lung Association, Environmental Protection Agency (EPA); Indoor Air Quality Association.

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 outside the normal range.

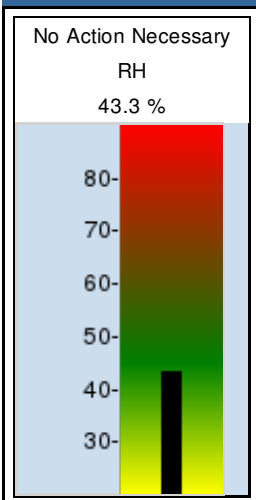
Potential Causes Fluctuating and/or low and high temperatures can occur due to structural causes and/or home heating & cooling system issues:

- 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

- Check thermostat and potentially upgrade
- Evaluate the need for multiple zones
- Verify furnace and A/C are correctly sized for the home
- 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 inside 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:

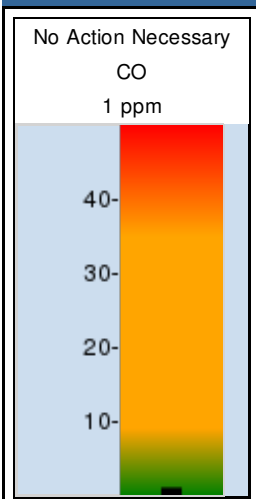
- Structural causes: Standing water in basement or other areas, leaky pipes/faucets, inadequate ventilation in winter (causes moisture build-up inside), and home is under "negative pressure" (pulls dry or moist air in from outside)
- Possible heating & cooling system issues: no or inadequate humidification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

Recommended Actions

- 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

According to the Environmental Protection Agency, indoor air can be up to two to five times more polluted than outdoor air. A typical one-inch furnace filter traps larger particles to protect your heating and cooling system, but doesn't trap many of the invisible particles. The Honeywell Electronic Air Cleaner is the most advanced and easy-to-use solution for improving your indoor air quality. The filtration technology efficiently traps the majority of airborne particles as they pass through the system.



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.



F300 Whole-House Electronic Air Cleaner

- Minimal maintenance; filter cell needs to be washed every 6-12 months
- Captures up to 99% of airborne particles in an advanced, low maintenance solution



F200 Whole-House Media Air Cleaner

- Simple maintenance; less frequent filter replacement needed
- Up to 97% more efficient than a standard one-inch filter



F100 Whole-House Media Air Cleaner

- Simple maintenance; less frequent filter replacement needed
- Up to 85% more efficient than a standard one-inch filter



24V UV Air Purifier with AirBRIGHT™ Odor Absorption

- Deactivates airborne and surface contaminants like mold, bacteria and viruses
- Neutralizes household odors
- For both coil and air treatment

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

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*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

Even when your heating and cooling system isn't running, your air system will come on, as necessary, to ensure that your family gets all the fresh air it needs. Best of all, you don't have to do a thing — your air system is set up to bring the proper amount of fresh air into your home automatically. The only thing you have to do is breathe.



SAVE MORE

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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) — Ventilates your home while balancing the incoming temperature and humidity difference
- Heat Recovery Ventilator (HRV) — Ventilates your home while balancing the incoming temperature difference
- 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



Digital Bath Fan Control

- Helps your bathroom fan operate more efficiently
- Installs easily in place of a normal switch
- Can operate manually or with programming

Indoor Air Quality Recommendation

Most homeowners think that having areas in their home that are too hot or too cold is just something they have to live with. With Honeywell solutions, including forced air zoning and thermostats with precise temperature control, you'll say goodbye to hot and cold spots and hello to comfort.

CONTROL FROM ANYWHERE, ANYTIME

Honeywell connected thermostats allow you to remotely monitor and control your home's comfort and energy usage. Ask your heating and cooling professional about the benefits of zoning.

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



Prestige® IAQ Thermostat

- Sense and make temperature adjustments from anywhere in home (with Portable Comfort Control)
- Controls up to three whole-house systems — humidifier, dehumidifier, air conditioner, ventilation
- Monitor and control your system from your computer, smartphone or tablet
- Works with RedLINK™ accessories



Lyric™ Thermostat

- App based install — Complete installation in four easy steps
- Geofencing uses your smartphone's location to automatically save energy when you're away and ensure comfort when you're home
- Fine Tune™ feature considers both humidity and temperature



Wi-Fi VisionPRO® 8000 Thermostat

- Simple to follow menus guide you through setup
- Control humidification, dehumidification or ventilation
- Be comfortable in the rooms where you live



Portable Comfort Control

- Sense and control temperature from anywhere in your home
- Be comfortable in the rooms where you live