

Acknowledgement:

This Fact Sheet is one of a series developed by an Interagency Committee with representatives from Saskatchewan Ministry of Health, Regional Health Authorities, Saskatchewan Watershed Authority, Saskatchewan Ministry of Environment, Saskatchewan Ministry of Agriculture, Agriculture and Agri-Food Canada – PFRA and Health Canada.

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Government of
Saskatchewan

Taste and Odour

(For Private Water and Health Regulated Public Water Supplies)

What Is Taste and Odour?

Taste and odour is hard to measure as there is considerable differences among people as to which tastes and odours are acceptable.

Typical complaints regarding the taste and odour of water are: chlorine smell or taste, rotten egg smell, petroleum smell or taste, metallic smell or taste; salty taste, and earthy or fishy smells and tastes.

How Does Taste and Odour Get Into Water?

Chlorine Smell or Taste

Chlorine tastes and odour is usually caused by the addition of chlorine to the water system or the interaction of chlorine with other parameters in the water. If water has a chlorine smell but not a chlorine taste, it may be due to not enough chlorine, while a chlorine taste is usually caused by a high level of chlorine.

Rotten Egg Smell

A sulphur or rotten egg odour or taste is most commonly caused by bacteria growing in your well, sink drain or water heater. However, in some cases, this is caused by naturally occurring hydrogen sulphide. The smell may also be due to a reaction with the magnesium anode in your water heater.

Petroleum Smell or Taste

Petroleum, gasoline, fuel or solvent odour is rare and potentially serious. It may be from an underground storage tank or another source of petroleum contaminant near your water supply.

Metallic Taste or Smell

A metallic taste or smell is usually due to minerals, such as iron or copper that can leach from water pipes or be present naturally. Metals such as zinc and manganese are also potential causes.

Earthy or Fishy Smells and Tastes

Earthy or fishy smells and tastes are commonly caused by bacteria growing in a sink drain or from organic matter such as plants, animals and bacteria that are present in lakes and reservoirs.

Salty Taste

A salty taste is usually due to naturally occurring sodium, magnesium or calcium, sulphate, and chloride.

How Does Taste and Odour Affect My Health?

As the causes of taste and odour are varied, it is usually difficult to determine if the taste or smell is related to a health concern. Taste and odour concerns are often related to aesthetic concerns. However, certain tastes and odour such as a petroleum smell may indicate that the water is not be safe to drink and the source of the smell should be determined prior to consumption.

It should also be noted that the lack of taste and odour provides no assurance that the water is free of pathogens or chemicals, as many contaminants have no smell or taste.

Other Considerations

To help determine whether a smell is due to bacteria in the sink drain, put a small amount of water in a narrow glass, step away from the sink, swirl the water around in the glass and smell it. If the water has no odour, the likely problem is bacteria in the sink drain. If the water does have an odour, it may be due to home plumbing (such as a water heater) or from the water source itself.

How Can I Test For Taste and Odour Related Issues

A conductivity test would provide an economical starting point to identify salty, metallic or sulphate containing water. For recommendations regarding your specific issue, see the contacts under 'Need More Information'.

How Can I Remove Taste and Odour From My Drinking Water?

The removal of taste and odour is specific to the cause of the objectionable taste or odour. Installing treatment that is effective for the origin of the concern should be considered. In non-specific taste and odour problems, an activated carbon filter may be sufficient, while other taste and odour problems may require a higher level of treatment such as reverse osmosis or distillation. In addition, aeration may also be effective for hydrogen sulphide or other dissolved gases.

For problems that originate with home plumbing such as the drain or water heater, draining the water heater or cleaning the sink drain may eliminate the odour of the water.

What Is The Standard For Taste and Odour In Drinking Water?

As there is no objective method of measuring taste and odour, Health Canada's Guidelines for Canadian Drinking Water Quality does not include a maximum acceptable limit.

Need More Information?

Health Regulated Public Water Supply

For more information on this fact sheet and/or other water quality issues relating to health regulated public water supplies contact your local health region public health inspector.

Private Water Supply

For more information on how taste and odour impacts on human health contact your local health region office. For information on how taste and odour impacts agricultural operations contact Saskatchewan Ministry of Agriculture through your Regional Office or the Agricultural Knowledge Centre at 1-866-457-2377 or on the internet (<http://www.agriculture.gov.sk.ca/AKC>).

Government of Saskatchewan Water Information website www.SaskH2O.ca	Water Inquiry Line Questions about water? Call 1-866-SASK H2O (1-866-727-5420) to be referred to proper agency.
Saskatchewan Ministry of Health http://www.health.gov.sk.ca/environmental-health Regional Health Offices Saskatoon: Saskatoon (306) 655-4605 Sunrise: Yorkton (306) 786-0600 Kelsey Trail: Melfort (306) 752-6310 Five Hills: Moose Jaw (306) 691-1500 Sun Country: Weyburn (306) 842-8618 Heartland: Rosetown (306) 882-6413 Prairie North: North Battleford (306) 446-6400 Prince Albert Parkland: Prince Albert (306) 765-6600 Cypress: Swift Current (306) 778-5280 Regina Qu'Appelle: Regina (306) 766-7777 Mamawetan Churchill River: La Ronge (306) 425-8512 Keewatin Yatthe: Buffalo Narrows (306) 235-5811	Saskatchewan Watershed Authority, Head Office, Moose Jaw (306) 694-3900 Website: www.swa.ca <i>Regional Offices:</i> http://www.swa.ca/AboutUs/Contact.asp?type=Offices
	Sask Water Corporation Head Office, Moose Jaw Customer Service 1-888-230-1111 Website: http://www.saskwater.com
	Prairie Farm Rehabilitation Administration (PFRA) - Agriculture and Agri-Food Canada Website http://www.agr.gc.ca/pfra/water/intro_e.htm <i>Regional Offices:</i> http://www.agr.gc.ca/pfra/sask_e.htm
Saskatchewan Ministry of Health Saskatchewan Disease Control Laboratory, Regina General Inquiry 1-866-450-0000 Phone: (306) 798-2125 // Fax (306) 798-0071 Website: http://www.health.gov.sk.ca/lab	Saskatchewan Ministry of Agriculture General Inquiry 1-866-457-2377 Agricultural Operations Regina (306) 787-4680 Irrigation Development Outlook (306) 867-5500 Website: www.agriculture.gov.sk.ca
Health Canada First Nation and Inuit Health Branch, Regina (306) 780-6561 // FAX (306) 780-7733 Website: http://www.hc-sc.gc.ca	Saskatchewan Ministry of Environment Toll-Free 1-800-567-4224 or (306) 953-3750 Spill Emergency Toll-Free 1-800-667-7525 Website: http://www.environment.gov.sk.ca