

<https://healthycanadians.gc.ca/recall-alert-rappel-avis/hc-sc/2021/75309a-eng.php>

Face masks that contain graphene may pose health risks

Report a Concern

Starting date:

April 2, 2021

Type of communication:

Advisory

Subcategory:

Medical Device

Source of recall:

Health Canada

Issue:

Product Safety

Audience:

General Public, Healthcare Professionals, Hospitals

Identification number:

RA-75309

Last updated: 2021-04-02

Summary

- **Product:** Face masks labelled to contain graphene or biomass graphene.
- **Issue:** There is a potential that wearers could inhale graphene particles from some masks, which may pose health risks.
- **What to do:** Do not use these face masks. Report any health product [adverse events](#) or [complaints](#) to Health Canada.

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Issue

Health Canada is advising Canadians not to use face masks that contain graphene because there is a potential that they could inhale graphene particles, which may pose health risks.

Graphene is a novel nanomaterial (materials made of tiny particles) reported to have antiviral and antibacterial properties. Health Canada conducted a preliminary scientific assessment after being made aware that masks containing graphene have been sold with COVID-19 claims and used by adults and children in schools and daycares. Health Canada believes they may also have been distributed for use in health care settings.

Health Canada's preliminary assessment of available research identified that inhaled graphene particles had some potential to cause early lung toxicity in animals. However, the potential for people to inhale graphene particles from face masks and the related health risks are not yet known, and may vary based on mask design. The health risk to people of any age is not clear. Variables, such as the amount and duration of exposure, and the type and characteristics of the graphene material used, all affect the potential to inhale particles and the associated health risks. Health Canada has requested data from mask manufacturers to assess the potential health risks related to their masks that contain graphene.

Until the Department completes a thorough scientific assessment and has established the safety and effectiveness of graphene-containing face masks, it is taking the precautionary approach of removing them from the market while continuing to gather and assess information. Health Canada has directed all known distributors, importers and manufacturers to stop selling and to recall the affected products. Additionally, Health Canada has written to provinces and territories advising them to stop distribution and use of masks containing graphene. The Department will continue to take appropriate action to stop the import and sale of graphene face masks.

Products affected

Face masks labelled as containing graphene or biomass graphene.

What you should do

- Do not use face masks labelled to contain graphene or biomass graphene.
- Consult your health care provider if you have used graphene face masks and have health concerns, such as new or unexplained shortness of breath, discomfort or difficulty breathing.
- Report any health product [adverse events](#) or [complaints](#) regarding graphene face masks to Health Canada.

Media enquiries

Health Canada
(613) 957-2983
hc.media.sc@canada.ca

Public enquiries

(613) 957-2991
1-866 225-0709
hcinfo.infosc@canada.ca

For more information

- [COVID-19 medical masks and respirators](#)
- [Canada.ca/coronavirus](https://www.canada.ca/coronavirus)

<https://www.aiha.org/news/210415-health-canada-masks-containing-graphene-may-pose-health-risks>

April 15, 2021

• Health Canada: Masks Containing Graphene May Pose Health Risks

- An [advisory](#) issued on April 2 by Health Canada, the Canadian federal department responsible for national public health, urges individuals not to use face masks that contain graphene, a novel nanomaterial reported to have antiviral and antibacterial properties. The masks containing graphene have been sold with COVID-19 claims. According to the advisory, mask wearers could potentially inhale graphene particles, which may pose health risks. Health Canada has directed all known distributors, importers, and manufacturers to stop selling and to recall the affected products, which include face masks labeled as containing graphene or biomass graphene. The department explains its action to remove graphene-containing masks from the market as a “precautionary approach” until it completes a scientific assessment and has established the safety and effectiveness of these products.
- “Health Canada’s preliminary assessment of available research identified that inhaled graphene particles had some potential to cause early lung toxicity in animals,” the department’s advisory states. “However, the potential for people to inhale graphene particles from face masks and the related health risks are not yet known, and may vary based on mask design.”
- Health Canada stresses that several variables, including the amount and duration of exposure and the type and characteristics of the graphene

material used, affect the potential to inhale particles and the associated health risks.

- A separate [medical device recall](#) from Health Canada was posted this week for masks and KN95 masks with biomass graphene. The recall also refers to the potential for wearers to inhale graphene particles from some masks.
- A statement ([PDF](#)) issued April 9 by the Graphene Council, an organization of graphene producers, researchers, and end-users, expresses concerns about Health Canada's advisory. The statement refers to the description of a disposable face mask that the council says is "at the center of this issue."
- "The mask appears to be constructed placing the 'graphene' layer directly on the wearer's face through the incorporation into a non-woven fabric layer," the Graphene Council notes. "Users in the complaints filed in Canada described 'a feeling of having inhaled hairs or fibers.' Graphene is not a fibrous material."
- For further details, see Health Canada's [advisory](#) and [recall](#).