

Notification and Assessment under the *Canadian Environmental Protection Act 1999* (CEPA 1999) of *Arcobacter SP. Strain* (Q&A summary)

What is it?

- *Arcobacter SP. Strain* is a naturally-occurring bacterium that was recovered from an oil reservoir in Alberta. Species of *Arcobacter* are ubiquitous in the environment and can be found in diverse habitats such as salt water springs, tidal and marine sediments, lakes, rivers, activated sludge and sewage.
- While some species of *Arcobacter* are capable of causing disease, *Arcobacter SP. Strain* is not considered to be a human, animal or plant pathogen.

How is it used?

- The notified strain of *Arcobacter SP. Strain* will be injected into oil wells as a component in a product to increase the efficiency of oil recovery.

Why did the Government of Canada assess it?

- A micro-organism that is not on the [Domestic Substances List](#) (DSL) and is not subject to federal legislation listed in Schedule 4 of [the Canadian Environmental Protection Act, 1999](#) (CEPA 1999), is considered “new” and before it is manufactured in or imported into Canada, the Government must assess its potential to harm human health and the environment under the [New Substances Notifications Regulations \(Organisms\)](#), as required by Section 106 of CEPA 1999. *Arcobacter SP. Strain* is not on the DSL.
- The Government of Canada conducted an assessment of *Arcobacter SP. Strain* because the notifier submitted a notification of its intention to manufacture and release this micro-organism in Canada for use in oil wells to improve oil recovery.

How is it released to the environment?

- *Arcobacter SP. Strain* already exists in the environment from where it was isolated.
- Widespread environmental release of *Arcobacter SP. Strain* is not expected because: (i) it will be used in a product that will be injected deep underground into oil wells, (ii) the production system is closed, (iii) the oil will be extracted at high temperatures at which the notified strain will not survive, and (iv) the normal conditions prevailing in the environment outside of the oil fields, are not conducive to the growth of the notified strain.

How are Canadians exposed to it?

- Based on the intended use, the general population in Canada is not expected to be exposed to *Arcobacter SP. Strain*.

What are the results of the assessment?

- The Government of Canada has conducted a science-based risk assessment of *Arcobacter SP. Strain*.
- Risk assessments address potential for harm to the general population in Canada (not including workplace exposures) and the environment.
- *Arcobacter SP. Strain* is not known to cause disease in healthy plants, animals or humans. In addition, confinement measures are in place to prevent the unintentional spread of *Arcobacter SP. Strain* from oil wells into the environment.
- *Arcobacter SP. Strain* is therefore not considered to be harmful to human health or the environment based on the intended use, and the Government of Canada has concluded that *Arcobacter SP. Strain* is not entering the environment in a quantity or under conditions that constitute a danger to the environment or humans.

What is the Government of Canada doing?

- Based on the conclusion of the risk assessment, the Government of Canada will take no further action on *Arcobacter SP. Strain*.