



Mercury and compounds

What does the National Pollutant Inventory do?

Pollution in Australia comes from many different sources. Some is a result of industrial activity but there are also sources of pollution that are not industrial, like cars, woodheaters and even lawn mowers.

The National Pollutant Inventory (NPI) is tracking pollution right across Australia by collecting data on about 93 different toxic substances emitted into the environment. The NPI can show you the source and location of these emissions.

The substances that are studied were chosen because of the problems they can potentially cause for our health and the health of the environment.

Mercury is one of the substances that the NPI tracks across Australia. Here are some fascinating facts about mercury and some hints on how you can help minimise its harmful effects on our health and on the environment.

You may have heard about the planet called Mercury, but did you know that mercury is also the name of a dangerous, poisonous substance? Mercury can be harmful to people and to plants, animals and the environment.

Where does mercury come from?

What about industry?

Non-ferrous metal (*those that do not contain iron*) manufacturing, mining and alumina production are the largest sources of mercury emissions in Australia.

Other industries which show mercury emissions include: precious metal mining (*which can emit mercury to water or land*), cement manufacturing (*which may emit mercury into the air*) and chemical manufacturing which is an emitter of mercury to land and into water.

Fossil fuel power plants may also emit mercury into the air by burning fuels such as coal, oil, and petrol. Our landfills and sewage also contribute to mercury being released into our soil and water.

What about the natural environment?

Mercury and its compounds occur naturally in the environment! Its elements are found in rocks and ores. Mercury can be released into the atmosphere by volcanoes and the evaporation of moisture from soils.

What about transport?

Small amounts of mercury can be released into the air in the exhaust fumes of vehicles such as cars, buses and motorbikes as they burn fuel.

What about in the products we buy?

Mercury is not found in many common products that we buy because it can be very dangerous. The most common products that contain mercury are batteries, powerful outdoor lights, disinfectants and thermometers (*used to measure our body's temperature*).



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It can also be found in barometers (*used to measure air pressure and show changes in weather*) and thermostats (*used for regulating the temperature of buildings*). Mercury can also be found in the toners used in printers and photocopiers.

What are some of the other sources?

Mercury is a great conductor of electricity and is used in floodlights (*to provide light to sports ovals after dark*) and streetlights. The mining and refining of gold, silver and other precious metal ores are also sources of mercury.

What effect does mercury have on the environment?

Aquatic life (*the fish, shellfish and other creatures in our rivers, lakes and oceans*) are likely to be exposed to mercury as it is often found in water. It can make them very sick, and may even kill them. Mercury can build up in the tissues of fish and shellfish and be harmful to people and to other animals that eat them.

Once mercury is released into the environment it will remain there for many years.

How might people be exposed to mercury?

People can be exposed to mercury in the following ways:

- drinking water or eating foods that contain traces of mercury.
- being exposed to mercury from dental work and medical treatments.
- breathing contaminated air.
- eating fish or shellfish which have been exposed to mercury.
- working at or living near factories where mercury is produced or used, such as fossil fuel plants or cement manufacturers.

Who is taking action?

There are all sorts of things that we can do at home, school, and in our local community to help minimise the harmful effects of pollution on our environment.

Why not investigate ways in which you can take action every day to reduce the problems that polluting substances can cause people, animals and the environment?

Visit: www.npi.gov.au/about/reduce.html

Where can I find out more about NPI substances?

For more information about mercury and its compounds see Australia's mercury and compounds emission report on the main NPI web site.

You will also find detailed information about the remaining 92 substances that the NPI tracks across Australia in the fact sheets on the main NPI web site.



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