



Particulate matter

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 and reported on were chosen because of the problems they can potentially cause for our health and the health of the environment.

Particulate matter is just one of the many substances that the NPI tracks across Australia. Here are some fascinating facts about particulate matter and some hints on how you can help minimise their harmful effects on our health and on the environment.

Particulate matter (*that's a tricky word to say, isn't it?*) is found almost everywhere, with particles in the air, dirt, smoke, soot, dust and water droplets. There aren't many places to hide from particulate matter are there? Other names for particulate matter are dust, inhalable particles, smoke and mist.

Where does particulate matter come from?

What about industry?

Particulate matter is produced by industrial processes (*such as the movement of large quantities of goods from one place to another*), combustion (*burning*) and minerals processing (*crushing and separating ore to extract valuable substances*). Some of the industries that use these processes and produce particulate matter are brickworks, refineries, cement works, iron and steel smelters, quarries and fossil fuel power plants.

What about the natural environment?

Particulate matter can occur naturally in the environment. Natural sources of particulate matter include bushfires and dust storms, pollens and sea spray that are carried through the air.

What about transport?

Particulate matter may be present in the exhaust emitted into the atmosphere by cars and trucks (*especially diesel-powered ones*). It can also be released into the environment by wear and tear on tyres, or the wind currents created by vehicles on roadways. Trucks carrying sand or similar loads, for example, can also spread particulate matter.

What about in the products we buy?

Particulate matter is not deliberately added to products. However, it is found in products such as talc and face powder because they are made up of fine particles!



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What are some of the other sources?

Particulate matter can be emitted naturally or by human activity. Motor vehicle emissions, industrial processes such as electricity generation, incinerators and stone crushing, dirt roads and wood heaters are just some of the possible sources.

What effect does particulate matter have on the environment?

Because there are many and varied types of particulate matter, their effect on the environment is not always the same. It can be worse in some areas than others. The more polluted the air, the greater the effect on the environment. People and animals can be greatly affected by the particulate matter in the air they breathe.

How might people be exposed to particulate matter?

People can be exposed to particulate matter in the following ways:

- breathing in air (*except when in specially filtered environments*).
- living in or near cities and industrial areas.
- living near busy and dusty roads.
- working in an area in which particulate matter is produced, such as in a quarry or brickworks.

The effects on people's health are increased for sensitive groups such as the elderly and children, and for people with asthma and allergies.

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 particulate matter see Australia's particulate matter 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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