

Health hazards of diesel combustion engines

The diesel engine is the main power source for heavy equipment and machinery.

If you work with diesel-powered engines, you may be exposed to the products from the combustion of diesel fuel.

The products in the exhaust of a diesel engine are:

1. Gases
2. Particles - diesel soot
3. Organic particle-associated carbons
4. Hydrocarbons

These products can all cause health problems.

Potential health hazards

Odour and smoke are the most important warning signs of the presence of diesel exhaust.

Exposure has several serious effects:

1. Breathing in exhaust can cause nausea and dizziness.
2. Eye irritation including itching, burning and watery eyes.
3. Sore throat and nose, coughing, wheezing and a tight chest.
4. Damage to blood and circulatory systems.

5. Carbon dioxide poisoning.

6. Headaches, fatigue, stomach pains and diarrhoea.

Chronic effects

These effects may be caused by high levels of irritating compounds in the exhaust gases.

Diesel fumes are suspected for increasing the risk of lung cancer in animal studies.

Evidence of the effect on humans is not so clear. There are some substances in diesel exhaust that have been linked with bladder cancer. The amounts found are very small and unlikely to cause a problem.

Preventative measures

- Ensure all machinery is maintained to a high standard.
- Replace worn out exhaust systems.
- Replace damaged manifolds.
- Do not allow exhaust products to blow back on operator.
- Remember, older engines in often used machinery will produce more hydrocarbons and particles.