

Dust

Dust is a general term for particles of any substance that become suspended in the air. Sometimes the particles are so small they are not visible to the naked eye.

Dust can be breathed in to the lungs (“respirable dust”) where it can cause damage to the lung tissue. It can also irritate eyes, skin and the digestive tract.

Dangers of dust

- Any dust can be dangerous if its particles are small enough to stay suspended in the air.
- Certain dusts cause serious health problems even at low levels (eg some wood dusts may cause cancer) – the HSE’s EH40 document gives exposure limits for general and specific dusts.
- Dusts can form explosive mixtures in air, eg flour, so it is important to prevent dust building up and to control ignition sources such as electrical equipment.

Health impacts of dust

Uncontrolled levels of dust can cause the following health problems:

- occupational asthma (OA)
- pulmonary fibrosis
- lung cancer
- mesothelioma (often associated with exposure to asbestos fibres)
- COPD (Chronic Obstructive Pulmonary Disease)
- dermatitis and other allergic skin conditions
- eye damage/irritation.

Ways of controlling dust

- The Workplace (Health Safety and Welfare) Regulations require effective and suitable ventilation of the workplace.
- Good ventilation can remove dust - this may be either general room/space ventilation system or a local exhaust ventilation (LEV) targeted at problem areas/processes.
- The effective design and maintenance of any ventilation system is crucial.
- Supervision of work operations can promote safe working practice.
- Workers must always follow safety instructions on dust management.
- Airborne sampling may be used to identify worker exposure to dust.
- Where dust cannot be adequately controlled by other means then personal protective equipment (PPE) can be necessary, eg respirators, breathing apparatus and eye protection.
- Good housekeeping and cleaning are needed, particularly vacuum cleaning, but this is often not enough on its own – other dust controls are usually needed, eg ventilation.
- Dusts should never be cleaned up using brushes, brooms etc as this makes the dust airborne – special vacuum cleaners with high efficiency filters are needed.
- COSHH risk assessments are needed to analyse hazards of specific dusts and dusty processes and identify the best controls.
- If not clear about how to manage dust in your workplace, seek advice from your supervisor or manager.



