

This guide is designed to provide information to help officials, representatives and members who may need to tackle a general dust issue in the workplace.

What is low toxicity dust?

This is classed by most people as general nuisance dust. The term 'nuisance' dust should not be used in relation to low toxicity dusts as it wrongly implies that there are no health problems that might arise from exposure, as any dust can be harmful in sufficient amounts.

What impact can it have on health?

Inhaling low toxicity dust can create breathing problems as it can get trapped in the nose, mouth, throat or upper respiratory tract. When dust is trapped in the mucus that lines the respiratory tract it may either be spat out or swallowed. Inhaled dust can also get into the digestive tract, where they can cause local effects such as gastrointestinal tract irritation.

There is some evidence that low toxicity dust exposure can cause more serious health conditions. A [study published by Cherrie et al \(2013\)](#) found that exposure to low toxicity dusts, which has previously been viewed as 'nuisance dusts', can cause chronic obstructive pulmonary disease or other non-malignant respiratory disease. Low toxicity dusts is the term used for all dusts but there are some dusts which are known to be more hazardous and will have their own WEL which is likely to be stricter – eg silica dust has its own low workplace exposure level set at 0.1 mg/m³.

What legal requirements does an employer need to consider?

It is important understand the difference between inhalable and respirable dust. Inhalable dust is visible to the naked eye. This dust may consist of larger or heavier particles that tend to get trapped in the nose, mouth, throat or upper respiratory tract where they can cause damage. Respirable dust is fine enough to be invisible to the naked eye and can be breathed deeply into the lungs and cause harm.

When the Control of Substances Hazardous to Health (COSHH) Regulations were introduced in 1988 they included control limits for any dust. These were set at 10 mg/m³ for inhalable dust and 4 mg/m³ for respirable dust. These trigger values have remained unchanged ever since then.

However toxicologists and occupational hygienists have raised concerns that these control limits are too lax. In the [article by Cherrie et al](#) they said 'current limits for low toxicity dust in Britain are not sufficient to protect health.' They go further and state, 'It seems unwise to regard exposure to low toxicity dusts below the COSHH trigger levels as safe.'

The TUC shares the experts' concern. In their [dust guidance](#) they advise trade union health and safety representatives that they 'should try to ensure that employers follow a precautionary standard of 2.5 mg/m³ for inhalable dust and 1 mg/m³ for respirable dust.

The unions have been also been critical of the HSE's failure to act on this evidence and lower the thresholds for dust and they think their guidance does not do enough to protect workers. The HSE guidance only acknowledges the evidence above and say 'there is a growing consensus in the occupational health/hygiene community that exposure to dust at levels below the concentrations outlined above is a risk to the health of employees and other people affected by work activity. So it is important to ensure that any exposure to dust is kept as low as possible.' However the HSE continue to refer to the 10 mg/m³ and 4mg/m³ control triggers in their [Dust in the Workplace](#) guide.

By contrast in their [Guidance on Low Toxicity Dust](#) the British Occupational Hygiene Society explain that it is a mistake for employers to assume that the trigger levels are safe limits that workers can be exposed to and that the duty to implement controls may still apply to dusts even when the trigger values are not exceeded.

How do you know if there is a dust problem?

Look for:

- Dust visible on workplace equipment, pipes, ledges and walls.
- Work that can create dust by mechanical or other activities.
- Workers coughing while in the workplace.
- Is dust being disturbed?

What should employers be doing to limit dust exposure?

Where there is a problem with dust in the workplace the employer will need to perform a risk assessment. The risk assessment should highlight how they intend to reduce the workers exposure to dust. The controls needed should reflect how much of a problem it is. For example, the employer will need to do more if workers are complaining it is impacting on their health and there are significant amounts of dust visible in the air and dust is being disturbed on workplace surfaces. Good control measures include the use of Local Exhaust Ventilation, vacuuming instead of sweeping or air blowing.

Please see:

HSE Dust in the workplace: General principles of protection guidance:
<https://www.hse.gov.uk/pubns/eh44.pdf>

HSE website link on dust:
<http://www.hse.gov.uk/dust/index.htm>

Cherrie JW et al (2013) Low-Toxicity Dusts: Current Exposure Guidelines Are Not Sufficiently Protective. *Annals of Work Exposures and Health* | Oxford Academic:
<https://academic.oup.com/annweh/article/57/6/685/149058>

TUC workplace dust guidance:
<https://www.tuc.org.uk/sites/default/files/DUSTWorkplace.pdf>

Information for BOHS members on application of COSHH to dusts not assigned Workplace Exposure Limits or hazard classifications and also on application of the principles of good control practice:
[Low-Toxicity-Dusts-and-Good-Control-Practice-11_08_21.pdf \(bohs.org\)](#)

Produced August 2022