



DNA Electrical Silica Dust Policy

Updated 25th February 2016

What is Silica

Silica is a natural substance found in materials on construction sites such as concrete, bricks, rocks, stone, sand and clay. Dust containing Silica is created when these materials are cut, ground, drilled or otherwise disturbed.

If the Silica dust particles are small enough they can be breathed deep into the lungs and cause damage. The dust is not always visible to the naked eye.

How does Silica Dust Harm Health?

Lung disease can develop from breathing in dust that contains Silica. These are diseases such as Silicosis, Chronic obstructive pulmonary disease, and Lung cancer. Lung disease can be caused by both long term exposures to small or moderate levels of Silica dust, and short term exposure to high levels of silica dust. It is also important to note that smoking adds to the lung damage caused by Silica dust exposure.

Work you carry out where you may be exposed to Silica dust?

Concrete

- Hammer drilling, grinding, or chipping

Masonry (bricks, stone, fibre cement products)

- Hammer drilling, grinding, or chipping

Be aware that other workers on a construction site (not DNA Electrical staff) may be creating Silica dust in the work they are completing. For example concrete and masonry demolition, abrasive blasting of concrete (especially where sand is used as the abrasive), concrete cutting.

- If this happens remember “Eliminate, Isolate, Minimise” as your order of risk removal
 - o Eliminate the risk of Silica dust if possible by removing yourself and your team entirely from the area where the dust is being generated. Work in a totally different section of the construction site that is upwind from the area where the dust is being generated; if this is not possible
 - o Isolate the risk. The lead contractor could be isolating the area and using special exhaust ventilation (this is the responsibility of the lead contractor on site to arrange as our work does not include abrasive blasting or large scale work with Concrete or Masonry; if this is not possible
 - o Minimise the risk by using PPE and following the process in this policy. Do NOT eat or drink or smoke in dusty areas.

How to minimise risk of Silica Dust

- 1) Use Dust Control Methods
 - a. **Water.** Water and wet working methods can keep Silica dust out of the air, and out of the lungs of those around you. Use a water hose if available, if not use the water bottle that is part of your PPE in your van. Do not dry sweep
- 2) Wear Respiratory (breathing) protection
 - a. **Disposable respirator/Dust mask.** All van's have disposable P2 dust masks on board. Always wear a P2 mask when carrying out works that create Silica dust. Note: Facial hair can affect the masks ability to form a tight seal around the face. It is best that men are clean-shaven when wearing these masks. The alternative is a full-face powered respirator which is not reasonably practicable for the work we do.
- 3) Wear Protective clothing
 - a. **Disposable Overalls.** Always wear disposable overalls when doing work that creates Silica dust. Every van should have multiple pairs of disposable overalls in their PPE kit. Remove disposable overalls prior to leaving site, remove your face mask AFTER removing your overalls. Wet the items, dispose of by placing in bag and then in rubbish bin.
 - b. **Disposable Gloves.** If possible wear disposable gloves (in the Van PPE list) so that these can be disposed of when completed. Always wash hands after completing works whether wear gloves or not. Ensure your hands are clean before eating or drinking.
- 4) Notify others on site prior to commencing works
 - a. **Advise those around you.** Always ensure you have advised people around you prior to creating any Silica dust to ensure they can minimise the risk to themselves or leave the area.

Required PPE

Required PPE if your work will create Silica Dust

- Disposable overalls
- P2 mask/respirator
- Water spray bottle, or customers water hose if available
- Safety Goggles
- (optional) Disposable Gloves – if not used you MUST wash hands thoroughly immediately upon completing dust works
- Drop sheet (if working inside)

Each van is equipped with a water spray bottle, disposable overalls, P2 masks, disposable gloves and Safety goggles. It is your responsibility to ensure your van PPE is kept up to date.

Note: As the person on site responsible for ensuring your safe work environment, you need to do what is Reasonably Practicable to remove or minimize the risk to your health and safety

Process for work where large amounts of silica dust generated, or where small amounts are generated over long period on site

1. Put on all personal protective equipment (PPE) as per this policy.
2. If inside; lay down drop sheet to catch any dust that falls down.

3. Spray area where you are going to cut with water **prior to cutting**.
4. If you are using a power hammer drill ensure the lead is plugged in to an RCD protected supply to eliminate the risk of electric shock.
5. Spray the area you are cutting with water **during cutting (taking breaks as necessary to keep area wet enough to minimise dust, and immediately on completion of cutting)**.
6. On completion of works that generate Silica dust, clean area using water (do not dry sweep the dust away). The best way to do this is with a water hose. If inside carefully wet the plastic drop sheet. Then fold up and place inside rubbish bag.
7. Clean drill bits.
8. Remove overalls, gloves, lastly face mask. Dispose of inside a plastic bag. Wash hands thoroughly.