



OPTIMISE
HEAT & STEAM



Working safely with metal working fluids

HSE leaflet indg365 is a guide for employees and is another big concern for the HSE (Health and Safety Executive).

This leaflet aims to help employees who work with metalworking fluids understand the main risks to their health.

We use metal working fluids when drilling or tapping, so we all need to be aware of the hazards involved.

How can metalworking fluids affect you?

if you inhale the mist, aerosol or vapour generated during machining operations. Your exposure will depend on the type of machining you are doing and how well the machine is enclosed and ventilated. Exposure is likely to be highest:

- near the metalworking machine.
 - in operations involving high-speed tools or deep cuts.
 - at machines where the process is not enclosed.
 - where there are inadequate ventilation arrangements.
- through contact with the skin, particularly hands and forearms, if appropriate precautions (e.g. the use of gloves, overalls, or face shields) are not taken. Skin contact can occur during the preparation or draining of fluids, handling of workpieces, changing and setting of tools, and during maintenance and cleaning operations. Fluids can also splash onto you during machining, e.g. if there are no splashguards or if they are inadequate.
 - by entering your body through cuts and abrasions or other broken skin; or
 - by entering your body through the mouth if you eat or drink in work areas, or do not wash your hands before eating or smoking.

What precautions should you take?

The more you know about the hazards associated with metalworking fluids and the precautions you should take, the safer you will be.

General

- Follow the instructions and training given by your employer on safe systems of work when working with metalworking fluids.
- Use splash guards, where provided, to control splashing and misting.
- Minimise the production of mist and vapour by controlling the volume and rate of delivery of the fluid to the cutting edge of the tool.
- Use any enclosures or ventilation provided to remove or control any mist or vapour produced.
- Allow a time delay before opening the doors on machine enclosures to ensure that all mist and vapour have been removed by the ventilation.
- Report any damaged or defective splash guards, ventilation hoods or other control equipment.
- Open workroom doors and windows to improve natural ventilation.
- Do not use compressed air to remove excess metalworking fluids from machined parts or plant or equipment.

Skin protection

- Reduce your contact with wet workpieces and surfaces.
- Do not put your bare hands into fluid sumps or use oily rags to wipe them clean.
- Wear suitable gloves, overalls, aprons, goggles, or face shields if needed (NB: Gloves can be hazardous if worn near rotating machinery or parts).
- Take care not to contaminate the inside of your gloves with metalworking fluids when putting them on or taking them off.
- You should ensure your hands are kept clean and in good condition. Using pre-work creams may help to make removing contaminants easier. They do not provide an effective barrier and are not a substitute for gloves. After-work creams are particularly beneficial because they help restore the natural moisture content of the skin after washing hands. See the HSE publication HSG262 for further information.
- Cover any cuts and abrasions with a waterproof dressing.
- Wash regularly with soap and water to remove metalworking fluids from your skin. Avoid using abrasive or powerful solvent cleaners.
- Wash your hands thoroughly before eating, drinking, or smoking. Pay particular attention to washing skin under rings and watch straps.

Other precautions

- Store personal protective equipment in the changing facilities provided or another clean storage area.
- Change dirty overalls regularly and keep oily rags out of your pockets.
- Avoid taking dirty overalls home, e.g. for washing.
- Avoid eating or drinking in areas where metalworking fluids are used.

You must:

- co-operate with your employer.
- make full use of any control measures, use personal protective equipment and report any defective equipment.
- attend and participate in health surveillance programmes at your workplace, where appropriate.

In light of these guidelines from the HSE a new Risk Assessment has been produce TF20.28
[C:\Users\Sophie\Optimise Heat and Steam Ltd\Optimise Staff - General\Data\OHS Working Main Folder\HEALTH & SAFETY\NEW RAMS FOLDER 2019 -\TF20.28 Dermatitis and Metal Cutting Fluid v0.01.docx](#)