

CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH

COSHH Assessments give information on hazardous substances and the associated health risks. They describe the required Personal Protective Equipment, actions to take in the event of a spillage or fire and first aid requirements.

- Ensure that you understand what controls are required.
- Look at your COSHH information and read the information supplied on any packaging.
- Do not exceed the workplace exposure limit (WEL)
- When using hazardous substances, wear the correct Personal Protective Equipment.
- Ensure COSHH information is available for all substances; if not available contact your line manager.



**DANGEROUS
TO THE
ENVIRONMENT**



TOXIC



**GAS UNDER
PRESSURE**



CORROSIVE



EXPLOSIVE



FLAMMABLE



**CAUTION - USED
FOR LESS SERIOUS
HEALTH HAZARDS
LIKE SKIN IRRITATION**



OXIDISING



**LONGER TERM
HEALTH HAZARDS
SUCH AS
CARCINOGENICITY**



These symbols help us to know that the chemicals we are using might be explosive, oxidising, highly or extremely flammable, (very) toxic, harmful, irritant, corrosive, or dangerous for the environment, less serious health hazards, serious longer term health hazards and contains gas under pressure. One or more might appear on a single chemical.

Know where the washing and first aid facilities are.

- Ensure hazardous substances are returned to a secure location after use and not left out.
- Do not eat, drink or smoke when handling substances.
- Do not expose colleagues or members of the public to fumes, gases, dust or other substances created by your work activities.



ALWAYS DISPOSE OF SUBSTANCES SENSIBLY

ASBESTOS

Asbestos is a fibrous naturally occurring mineral of which there are three types: **Blue** (crocidolite), **Brown** (amosite) and **White** (chrysotile).

Asbestos can be found in many places including but not limited to: corrugated roofing, gaskets, wall tiles, artex, floor tiles, pipe lagging, meter boards, underground pipes and underground ducts.

Damaging or breaking asbestos containing materials can release fibres and it is the fibres that are harmful. Asbestos fibres can enter the body through the eyes, respiratory system, digestive system and skin.

There are four diseases relating to asbestos and the effects may not become known for many years following exposure:

1. Mesothelioma (a cancer of the lining of the lungs; it is always fatal and is almost exclusively caused by exposure to asbestos).
2. Asbestos-related lung cancer (which is almost always fatal).
3. Asbestosis (a scarring of the lungs which is not always fatal but can be a very debilitating disease, greatly affecting quality of life).
4. Diffuse pleural thickening (a thickening of the membrane surrounding the lungs which can restrict lung expansion leading to breathlessness).

IF YOU ENCOUNTER ASBESTOS STOP WORK AND CONTACT YOUR LINE MANAGER - NEVER DISTURB ASBESTOS

Disposal of asbestos is classed as hazardous waste and **MUST** be undertaken by a specialist contractor. There are some circumstances whereby you can work on asbestos (non-licensed work) but you must have the appropriate information, instruction and training. Your line manager will discuss this with you if required.

If you are authorised to undertake non-licensed work, you **MUST** follow the agreed asbestos safe system of work and pay particular attention to:



- Avoid cutting / breaking the asbestos with any mechanical tools; use hand tools and don't break it unnecessarily.
- Keep the section of asbestos that has to be cut damp / wet at all times.
- Restrict access to the working area to prevent contamination of others.
- Wear the correct personal protective equipment / respiratory protective equipment whilst handling / breaking / cutting the asbestos material. Dispose of after use if heavily contaminated.
- Remember to clean all contaminated tools after use.
- Asbestos waste is to be double bagged, labelled and disposed of as hazardous waste at a licensed facility.



FLAMMABLE LIQUIDS

The highly flammable nature of these products is identified by the appropriate symbol and wording on the container.

The definition for flammable liquid includes all liquids that are classified as flammable, highly flammable or extremely flammable. This definition includes highly flammable liquids, petroleum spirit and petroleum mixtures.

The main hazards from the use of flammable liquids are fire and explosion involving either the liquid or the vapour given off from it. Fires or explosions are likely to occur when vapours or liquids are released from a controlled environment to areas where there may be an ignition source, or alternatively when an ignition source is introduced into a controlled environment. Examples of common causes of such incidents include:

- Lack of awareness of the properties of flammable liquids.
- Operator error, due to insufficient training.
- Hot work on or close to flammable liquid containers.
- Misuse of flammable liquids.
- Inadequate segregation of ignition sources.

Precautions to prevent ignition

- The exclusion of all ignition sources.
- Control and retention of possible spillages to prevent them spreading around stored materials.
- Good ventilation.
- Keep the lid tightly on containers when not in use.
- Store flammable liquids in a secure bunded area. LPG in cylinders must be stored in ventilated cages or cabinets on vehicles ventilated to atmosphere.
- Store all flammable liquids in appropriate containers in accordance with manufacturers' instructions.
- Ensure appropriate fire equipment is available, in date and accessible.



NEVER do the following in areas where flammable liquids are stored or used.

- Smoke.
- Use mobile phones.
- Leave spillages.

ALWAYS Keep stored flammable liquid containers apart and always refer to the COSHH data sheet for guidance on storage.

SAFE USE OF LIQUID PETROLEUM GAS (LPG)

Safe storage on site and on vehicles

LPG **MUST** not be stored inside buildings where leakages could cause an explosive hazard.

Storage locations should be outside and well ventilated, away from building entry / exit points and drains.

Storage within vehicles **MUST** be in secure vented housings and ensure that dry powder extinguishers are available and the rear door has a danger notice fitted to it stating: **“Warning no ventilation open with caution”**



LPG is extremely flammable when mixed with air; the following control measures must be followed:



- Keep well ventilated.
- No direct heat / flame.
- Check against leaks.
- Limit use in confined spaces.
- Take care of regulator.
- Secure and clean connections.

CHECK It is the correct bottle?	
Propane	Butane

LPG bottles are awkward objects take care in selection and movement.

- Treat all bottles as full, keep them upright at all times and ensure the main valve is closed.
- When manoeuvring the bottle make sure you wear clean gloves free from dirt or grease and at no point lift the bottle by the regulator.

Regulators **MUST** be checked and specific to the type of LPG and **NEVER**:

- Adjust regulators.
- Use worn regulators (replace it).
- Allow pressure to be put on the regulator.

ALWAYS ensure that the following controls are followed:

- Document the use of LPG on your risk assessment (No local flames allowed, No trailing hoses, No gas allowed to leak into confined spaces).
- LPG is an unseen hazard in confined spaces and care must be taken to prevent danger.
- In the event of fire, switch off the main valve if there is no risk to you.
- Regulators are fitted between the bottle and the appliance.
- In the event of a fire **DO NOT** use water, vacate and protect the area and call the emergency services.

ONLY USE DRY POWDER FIRE EXTINGUISHERS

DANGEROUS SUBSTANCES AND EXPLOSIVE ATMOSPHERES

Dangerous Substances and Explosive Atmosphere Regulations (DSEAR) are applicable to the control of substances or mixtures of substances that can cause fires and explosions in the workplace and include:

- Substances or mixtures classified as explosive, oxidising, extremely flammable, highly flammable, or flammable, including Biogas.
- Any kind of dust that when spread airborne to form a cloud (i.e. form an explosive atmosphere) can explode, this includes sludge dryers and sanding operations.

Remember when working with Flammable Substances (**V I C E S**)

V Ventilation
I Ignition
C Containment
E Exchange
S Separation



ALWAYS

- Undertake a risk assessment.
- Store **ALL** liquids and gases safely.
- Ensure **VICES** is considered at all times.
- Ensure areas at risk are identified and 'zoned' off and only use correct equipment categories for the zone e.g. Category 2 for Zone 1 or 21.
- Be aware of emergency arrangements.
- Be aware of the relevant hazard sheets / COSHH assessments.
- Obtain a safety document before using equipment that may affect any of the above.
- Use mobile phones in designated areas.
- Correct Personal / Respiratory Protective Equipment are worn at **ALL** times.
- Smoke in designated areas.
- Permit to work for working and entering zoned areas; especially for hot works.
- Use a gas detector fitted with an LEL Explosive gas sensor.
- Installing electrical equipment in zoned areas to be by a COMPEX electrician.

NEVER

- Put yourself or others at risk of harm.
- Store liquids / gases without being secured.
- Use Mobile phones in areas that could cause a reaction.
- Deviate from the information provided on hazard sheets / COSHH assessments.
- Take any type of heater or spark producing device (e.g. welding, cutting, abrasive wheels, battery powered watches, hearing aids, radio's, cameras, mobile phones etc.) into a zoned area, unless a safe system of work has been established.
- Take aluminium ladders into dust zones.
- Undertake electrical maintenance until all power is isolated. If it cannot be avoided then you **MUST** ensure the area is free from explosive gases or dusts.