# LEIA Safety Information Sheet

# Control of Substances Hazardous to Health

Prepared by the LEIA Safety & Environmental Committee

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**SAFETY INFORMATION SHEET**
**CONTROL OF SUBSTANCE HAZARDOUS TO HEALTH**

## PREAMBLE

This Information Sheet is one of a series produced by the LEIA Safety and Environment Committee on topics relevant to the Lift and Escalator Industry. Whilst every effort has been taken in the production of these sheets, it must be acknowledged that they should be read in conjunction with the relevant legislation, codes of practice etc. They should not be taken as an authoritative interpretation of the law but guidance to it.

**Note:** This safety information sheet is intended to cover site activity undertaken by LEIA members it is not intended to address CoSHH issues in manufacturing environments.

## INTRODUCTION

Every year, thousands of workers are made ill by hazardous substances, contracting lung disease such as asthma, cancer, and skin disease such as dermatitis. Employers are responsible for taking effective measures to control exposure and protect health.

## WHAT SUBSTANCES ARE HAZARDOUS TO HEALTH?

The Regulations cover a wide range of substances and includes those that are very toxic, harmful, corrosive, irritant or biological. In the UK lift industry these could include cleaning materials, dusts, fumes, solvents, building products, oils, paints, adhesives etc. Bacteria and viruses are also covered by the Regulations. Ill health caused by exposure to these substances at work is preventable. Many substances can harm health but if used properly they almost never do.

There is no limit on the quantity of chemicals to the application of CoSHH. The overriding principle is that if a substance is a hazard to health, it must be assessed.

What you must consider is that even household items, when used in the workplace, must be considered and risk assessed. Household washing-up liquid now has an ‘irritant’ pictogram to indicate that it must be used correctly in the workplace. The requirements of CoSHH apply to all substances and include dust from drilling etc. not just substances in containers.

## TO DETERMINE HOW THESE SUBSTANCES ARE HARMFUL:

The most common method is by checking information that came with the product, e.g. a safety data sheet and/or safety information on the container. By asking the supplier, or in house safety advice, LEIA or by checking on the Internet, e.g. HSE’s or suppliers/manufacturers website.

Note: The Manufacturers Safety Data Sheet (MSDS) contains information about the substance, which is of value when compiling a CoSHH assessment, but it does in itself does not constitute a CoSHH Assessment and is not a substitute for one. CoSHH is about how the substance might or will be used.

Think about how the substances will be used and where and if the substance is harmful, how might workers be exposed. So a substance safe in the open environment may be hazardous when used in an enclosed space. For example by breathing in fumes, mist, or dust, contact with the skin, swallowing, contact with the eyes skin puncture?

## CONSIDER THESE ROUTES OF ENTRY TO THE BODY AND THE HARM WHICH MAY RESULT

- Exposure by breathing in.

  Once breathed in, some substances can enter the central nervous system by being absorbed by the blood and affect the oxygen content in it. Others can attack the nose, throat or lungs and other parts of the body, e.g. the liver.

- Exposure by skin contact.

  Some substances damage skin, while others pass through it and damage other parts of the body. Skin gets contaminated:

  - by direct contact with the substance, e.g. if you touch it or dip your hands in it (e.g. hydraulic fluid)
  - by splashing (paint)
  - by substances landing on the skin, e.g. airborne dust (concrete dust from drilling)
  - by contact with contaminated surfaces (when cleaning pits etc)

- Exposure by swallowing

  Although this may seem unlikely people transfer chemicals from their hands to their mouths by eating, smoking etc without washing first.

- Exposure to the eyes

  Some liquids and dusts are irritating to eyes and can damage eyesight permanently. (e.g. superglue and similar)

- Exposure by skin puncture or through the skin

  Risks from skin puncture such as needlestick injuries are rare but can involve infections (e.g. Hepatitis) or very harmful substances, (e.g. drugs). Others can enter the body through the skin and be absorbed by the body affecting the oxygen level in the blood and the central nervous system.

## TO COMPLY WITH THE COSHH REGULATIONS THE FOLLOWING 8 STEP APPROACH IS RECOMMENDED

| | | Considerations | Notes |
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| Step 1 | Assess the risks | Assess the risks to health from hazardous substances used in or created by your workplace activities | Determine what substances are to be used, determine if they are hazardous if so how, consider the route of entry into the body and consider the potential for harm which may occur. Consider how much material is to be used and where – in what environment and who will be affected. If unsure seek advice in any cases where you are unsure. |

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| Step 2 | Decide what precautions are needed | You must not carry out work which could expose your employees to hazardous substances without first considering the risks and the necessary precautions and what else you need to do to comply with COSHH | Examples of control measures are given in Appendix 1 however bear in mind Control Measures are always a combination of equipment and ways of working and the correct combination is crucial. Method statements must reflect this stating both the equipment to be used and the correct way of working. For example a method statement detailing handling hydraulic fluid should indicate PPE requirements and describe how the material is to be handled and the washing facilities required. |
| Step 3 | Prevent or adequately control exposure | You must prevent your employees being exposed to hazardous substances. Where preventing exposure is not reasonably practicable, then you must adequately control it. | Ensure any control measures identified in step 3 are put in place. Seek guidance regarding control measures if necessary. The manufacturers safety data sheet may indicate normal control measures, but you must be sure that these are suitable for your particular working environment – lift shafts, lift cars, machine rooms and pits may not be adequately ventilated where paint is being applied or other substances giving rise to fumes are being used.<br><br>Take account that many fumes are heavier than air so may build up in the pits and lower points. |
| Step 4 | Ensure that control measures are used and maintained | Ensure that control measures are used and maintained properly and that safety procedures are followed | Where a COSHH assessment identifies a particular control measure is required, then you need to ensure by monitoring activity that this is used by your workers and that controls are maintained for the duration of the work and any replacement PPE is readily available.<br><br>If using LEV then it needs to be checked regularly to ensure effectiveness. |
| Step 5 | Monitor the exposure | Monitor the exposure of employees to hazardous substances, if necessary | Monitoring is required where the failure of controls could result in a serious health effect but may not be appropriate where it is obvious exposure is being adequately controlled. Monitoring normally means air sampling but it may also involve taking biological samples (e.g. breath or urine). Air sampling will ensure any Workplace Exposure Limits (WELs) are not exceeded. (Refer HSE Publication EH40). |

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| Step 6 | Carry out appropriate health surveillance | Carry out appropriate health surveillance where your assessment has shown this is necessary or where COSHH sets specific requirements | Health surveillance may be required for exposure to certain substances but should be specified as part of a COSHH assessment as a check that control measures are effectively preventing exposure. |
| Step 7 | Prepare plans and procedures to deal with accidents, incidents, and emergencies | Prepare plans and procedures to deal with accidents, incidents and emergencies involving hazardous substances, where necessary | Your assessment needs to consider and specify how you will deal with an incident involving a substance for example a spillage or accidental exposure – such as eye contact. First Aid measures for the substance being used should be on hand and readily available. |
| Step 8 | Ensure employees are properly informed, trained and supervised. | You should provide your employees with suitable and sufficient information, instruction, and training | Involve workers in developing controls and making sure they are suitable for the way in which they carry out their work. Encourage employees to suggest improvements and report anything they think might be wrong.<br>You must explain to your workers the dangers of the hazardous substance being used and show them how to use any control measures properly. Workers using respirators must be trained how to check for face fit. |

## DIFFICULTIES

COSHH can be difficult to address where local practice and suppliers differ and many different substances are used.
One way this might be addressed is that a master inventory of 'approved' hazardous substances is compiled and these substances assessed centrally with rules in place to ensure substances when required for use are only selected from this master list.

Field employees need information to ensure any materials they purchase themselves have been properly assessed,

## COSHH SYMBOLS:

Explosive

Flammable

Oxidizing

Corrosive

Toxic

Environmentally damaging

Irritant

Health hazard

Note, a further symbol in this series may be seen on packaging, for compressed gas; this is not part of CoSHH labelling.

## FURTHER INFORMATION

HSE ACoP L5 Control of substances hazardous to health (6th Edition)

COSHH: A brief guide to the regulations INDG136 (rev 5), revised 10/12

EH 40 Workplace Exposure Limits (2nd Edition, published 2011)

COSHH Essentials http://www.coshh-essentials.org.uk/

UN Economic Commission for Europe: Globally Harmonized System of Classification and Labelling of Chemicals GHS (Rev.2) (2007)

## APPENDIX 1 SELECTING CONTROL MEASURES

Control measures should be selected in the following order of priority:

| **In order of priority:** | **Examples** |
|---|---|
| Eliminate the use of the harmful product or substance and use a safer one. | Using a water-based paint rather than solvent based one. |
| Use a safer form of the product | Brush applied liquid paint rather than sprayed |
| Change the process to reduce exposure to the substance | Arrange for painting off site. This option may be difficult to implement for site work. |
| Enclose the process so the substance can't escape | Again this may be difficult for site work. |
| Extract emissions of the substance | Provide temporary ventilation either natural or mechanical |
| Reduce numbers exposed | Keep others out of working area, carry out work when building unoccupied. |
| Provide PPE | Provide gloves, overalls, eye protection, disposable respirator. |

## APPENDIX 2 HAZARD AND CONTROL GOOD PRACTICE CHECKLISTS

(From HSE CoSHH Essentials - http://www.hse.gov.uk/coshh/essentials/)

**Hazard checklist**

- ☐ Does any product you use have a danger label?
- ☐ Does your process produce gas, fume, dust, mist or vapour?
- ☐ Is the substance harmful to breathe in?
- ☐ Can the substance harm your skin?
- ☐ Is it likely that harm could arise because of the way you use or produce it?
- ☐ What are you going to do about it?
  - Use something else?
  - Use it in another, safer way?
  - Control it to stop harm being caused?

**Checklist for good control practice**

- ☐ Do you design and run your processes to keep the spread of contaminants as low as possible?
- ☐ Do you think about all routes of exposure – breathing in, on skin or swallowing?
- ☐ Do you choose control measures according to the amount of substance, how it gets into the body and how much harm it will cause?
- ☐ Do you make sure that measures are effective, easy to use, and work properly?
- ☐ Do you also need to issue personal protective equipment (PPE)?
- ☐ Do you check regularly that measures continue to work, and keep simple records?
- ☐ Do you tell workers about the dangers and how to use control measures properly?
- ☐ Do you avoid increasing the overall health and safety risks when making changes?