

# Preventing ill health when handling chemicals

This leaflet has been produced by the Chemical Downstream Oil Industry Forum's Occupational Disease Working Group. It highlights findings from research commissioned to check the robustness of the data sources of reported ill health in the chemical and downstream oil sector, with the aim of providing an insight into the particular problems areas within the sector.

This research is the first step in a phased approach to look further into the causes of ill health due to chemical exposure in the sector.

## **Why employers and senior management teams need to read this leaflet.**

This leaflet describes what you, as an employer, should be doing to protect your employees from the risk of becoming ill due to exposure to chemicals in the workplace. It will also be useful for employees and their representatives.

Every year, due to poor management practices, many workers are made ill by hazardous substances, contracting a range of conditions from lung disease such as asthma, cancer to skin disease such as dermatitis.

Did you know that, you, as the employer, are responsible for taking effective measures to control exposure and protect the health of your workforce?

These measures can also improve production and provide efficiency savings. Having a healthy workforce is a crucial factor in the success and longevity of a business. Poor sickness absence and staff turnover have a big impact on productivity and efficiency which may reduce businesses' profits.

## **What Health problems?**

Two main health issues identified in the recent research (see Useful Links below) within the chemical and downstream oil sector were occupational asthma and occupational dermatitis. The suggested approach in this leaflet will also help protect your workers from long term chronic conditions such as cancers.

The research indicated that occupational asthma reporting rates for the chemical and downstream oil sector were similar to those for the general manufacturing sector but higher than the rate for all industries combined. The main immediate causes included aldehydes, enzymes, soaps and detergents, isocyanates, laboratory animals and sewerage, pharmaceuticals, dyes and pigments and metals/metal compounds.

Occupational dermatitis was also shown in the research to be a commonly reported ill health consequence of working in the chemical and downstream oil industry, with 53% of the sectors' ill health reports, over a 5 year period, being for occupational dermatitis; compared to 13% by other sectors. The main immediate causes included pharmaceutical agents, soaps and detergents, acrylic resins, epoxy resins, hardeners, cosmetics and toiletries, wet work, dyes and pigments, preservatives, rubber chemicals and materials and enzymes.

## **Tackling occupational health issues - What should you be doing?**

Chemical companies need to be aware of potential health problems, and have in place arrangements for identifying and managing exposure of workers to harmful substances, including [occupational hygiene procedures](#) and a [health surveillance programme](#).

The HSE website contains many useful documents to help you identify and manage your exposure risks. If you have the controls in place but are still finding incidents of ill health that may be related to work within your company, investigate why by looking at your controls and ask yourself some questions:

- Have you carried out suitable and sufficient COSHH risk assessments (including consideration of the appropriate [Safety Data Sheets](#)) and translated the findings into working practice?
- Have you considered preventing exposure at source by avoiding the use of a hazardous substance?
- Have you got appropriate engineering/ controls in place eg effective extraction systems?
- Are you sure that the respiratory protective equipment and personal protective equipment is being used; is being worn properly; appropriate to the process and is it being maintained properly etc?
- Are you sure the workplace procedures and processes designed to prevent exposure are being carried out correctly, with no short cuts being taken etc?

Further information on the above can be found in HSE's webpage COSHH Basics: <http://www.hse.gov.uk/coshh/basics.htm> .

Senior management needs to be aware of the health risks and put in place competent occupational health and hygiene resources to support the management system. This should be in line with the Plan, Do Check, Act, approach as identified in [HSG 65](#). These health management systems must be consistently reviewed, not put

in place and forgotten about. Checks should be made to ensure all the systems put in place to prevent chemical exposure are working correctly.

Health surveillance – having a bespoke programme in place to monitor the particular risks to your workforce, is a way of ensuring the systems in place are effective. It allows for early identification of ill health and helps identify any corrective action needed. Health surveillance is important for:

- Detecting ill-health effects at an early stage, so employers can introduce better controls to prevent them getting worse;
- Providing data to help employers evaluate health risks;
- Enabling employees to raise concerns about how work affects their health;
- Highlighting lapses in workplace control measures, therefore providing invaluable feedback to the risk assessment; and
- Providing an opportunity to reinforce training and education of employees (eg on the impact of health effects and the use of protective equipment).

**Remember** that health surveillance may be a particular legal requirement for example where you have exposure to:

- Certain solvents, dusts, fumes, biological agents and other substances hazardous to health;
- Asbestos, lead or work in compressed air; and
- Ionising radiation.

Health surveillance should not be confused with:

- Activities to monitor health where the effects from work are strongly suspected but cannot be established;
- Workplace wellbeing checks, such as promoting healthy living fitness to work examinations eg fitness to dive, operate cranes, forklift trucks; or
- workplace wellbeing, and fitness to work

### **Useful links:**

HSE Asthma website: <http://www.hse.gov.uk/asthma/about.htm>

HSE Skin website: <http://www.hse.gov.uk/skin/>

Energy Institute Publications:

<http://www.energypublishing.org/publication/ei-technical-publications/health>

Chemical Industries Association – Sustainable Health Metrics Indicator Tool:

[www.cia.org.uk/CIAServices/WorkplaceHealth.aspx](http://www.cia.org.uk/CIAServices/WorkplaceHealth.aspx) .

For companies in the Chemical and Downstream Oil sector:

- Joint industry/HSE research was commissioned to check the robustness of the data sources of reported ill health in the chemical and downstream oil sector. The aim was to better understand the data behind HSE's headline figures, which would in turn help to provide an insight into the particular problem areas within the chemical sector. The full report can be found at:

<http://hseonline/website/shadow/wwwroot/research/rrhtm/rr1013.htm>.