



Communicating information about dangerous substances



Courtesy of the Danish Working Environment Authority, Denmark.

Introduction

The Agency is producing a series of factsheets on occupational safety and health information about dangerous substances for the European Week for Safety and Health at Work 2003. Effective communication about the risks to workers' health and their management in the workplace is a common challenge for employers, workers, and their representatives. This factsheet presents points to consider for successful communication.

Legislation

EU regulations on classification and labelling⁽¹⁾ set the frame for obligations of producers of chemical substances. They determine important information⁽²⁾ to be provided in a standardised way in safety labels, risk symbols and safety data sheets available to the users.

The directive related to chemical agents⁽³⁾ specifies that employers shall obtain additional information that is needed for risk assessment from the supplier or other readily available sources. The employers also have to ensure that the workers and/or their representatives are informed and trained on:

- the hazardous properties of the chemical agents handled;
- the level, type and duration of exposure and the circumstances of work involving such agents;
- appropriate precautions to safeguard themselves and other workers at the workplaces;
- the effect of risk-management procedures taken or to be taken;
- relevant occupational exposure limit values or biological limit values;

- and where available, the conclusions to be drawn from any health surveillance and exposure assessment already undertaken.

Additionally, the employer shall also ensure that the workers are aware of the changes in these circumstances.

For workers likely to be exposed to carcinogens and mutagens⁽⁴⁾ or certain biological agents⁽⁵⁾, employers have to keep records including information about exposure and health surveillance. Workers have to be provided with access to their personal data.

These regulations have to be transferred into national legislation. Member States are entitled to include some additional or more stringent provisions for the protection of workers, as the corresponding directives only lay down minimum requirements.

The future EU system of registration, evaluation and authorisation of chemicals REACH aims to increase the availability of relevant information about properties of chemicals, their environmental and health effects, intended uses and risk-reduction measures.

It is therefore strongly recommended that you seek clarification of specific national legislation that may apply relating to the use of dangerous substances in the workplace.

Labelling of chemicals

If a chemical substance or product is classified as dangerous, the manufacturer or the importer must put a danger label on the packaging with information about at least:

- the name or trade name of the substance or product and the name and address of the person responsible for placing it on the market;
- name(s) of the dangerous contents that lead to the danger classification;
- EC registry numbers for substances, for example the EINECS⁽⁶⁾ or ELINCS⁽⁷⁾ number;
- standardised indications of danger, danger symbols⁽⁸⁾, risk indications (R-phrases⁽⁹⁾) and safety directions (S-phrases⁽¹⁰⁾). Provisions are also laid down for preparations containing several dangerous substances which require several symbols and risk phrases.

Risk symbols, risk (R) phrases and safety (S) phrases are indications of the substance's hazard and of safety measures relating to that substance. Both the R and S phrases are set by the directives of the European Community⁽¹¹⁾. They are used in the labelling of the packages and in safety data sheets to warn and guide the usage of the dangerous goods and preparations. Risk phrases are standardised presentations of the potential harms of the product for health and safety in normal handling and use, for example R21 'Harmful in contact with skin'. Safety phrases and their combinations present preventive measures to be taken such as S15 'Keep away from heat'.

For workplace use, extensive and standardised additional information has to be given in the safety data sheets regarding health effects, contents of the product, appropriate protection measures and personal protective equipment.

⁽¹⁾ e.g. Council Directive 67/548/EEC of 27 June 1967 and its subsequent amendments presenting requirements for testing, classification, packaging and labelling of dangerous substances, Directive 1999/45/EC relating to the classification, packaging and labelling of dangerous preparations.

⁽²⁾ Commission Directive 91/155/EEC of 5 March 1991 and its amendments defining and laying down the detailed arrangements for the system of specific information relating to dangerous preparations (safety data sheets).

⁽³⁾ Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work.

⁽⁴⁾ Council Directive 90/394/EEC of 28 June 1990 on the protection of workers from the risks related to exposure to carcinogens at work and its amendments.

⁽⁵⁾ Directive 2000/54/EC of the European Parliament and of the Council of 18 September 2000 on the protection of workers from risks related to exposure to biological agents at work.

⁽⁶⁾ European Inventory of Existing Commercial Substances (EINECS), an inventory containing 100 195 substances, see <http://ecb.jrc.it/new-chemicals/>

⁽⁷⁾ European List of New Chemical Substances, see <http://ecb.jrc.it/new-chemicals/>

⁽⁸⁾ <http://www.ilo.org/public/english/protection/safework/cis/products/icsc/dtash/symbols/index.htm>

⁽⁹⁾ <http://www.ilo.org/public/english/protection/safework/cis/products/icsc/dtash/riskphrs/index.htm>

⁽¹⁰⁾ <http://www.ilo.org/public/english/protection/safework/cis/products/icsc/dtash/sftyphrs/index.htm>

⁽¹¹⁾ Commission Directive 2001/59/EC of 6 August 2001 adapting to technical progress for the 28th time; Council Directive 67/548/EEC.

http://europa.eu.int/smartapi/cgi/sga_doc?smartapi!celexapi!prod1!CELEXnumdoc&lg=en&numdoc=32001L0059&model=guichett

Safety data sheets (SDS)

Chemical manufacturers and suppliers are required to provide professional users with safety data sheets⁽¹²⁾ that provide information on the properties of the substance, the dangers to the health and environment, hazards based on physico-chemical properties, storage, handling, transport and disposal, and guidance for protection of the workers, for firefighting, measures to be taken following accidental release and first aid measures, as necessary. The main purpose of safety data sheets is to enable employers to determine whether any hazardous chemicals are present in the workplace, and to assess whether there is any risk to the health and safety of workers and/or to the environment arising from their use. Workers or their representatives have to have access to the safety data sheets.

The information contained in the safety data sheets can be the starting point in the identification of the hazards to which workers are exposed and the control measures required. Nevertheless, not all potential conditions of use can be foreseen by the producer. The protection measures recommended in the safety data sheets have therefore to be adapted to the conditions at the specific workplaces.

Other information sources

For some products, such as pharmaceuticals (e.g. cytostatic drugs) or cosmetics (e.g. hairdressing products), safety data sheets do not have to be provided by suppliers.

Even where SDS are available, more information might be needed in some cases. In order to collect the necessary information for assessing risks and taking preventive action, it is then necessary to:

- use other sources (technical documentation, instructions for use, technical and scientific reference papers and journals);
- ask manufacturers and suppliers;
- consult preventive services;
- seek advice from professional organisations (trade associations, chambers of commerce, trade unions, social security and others);
- contact authorities.

Biological agents are classified according to their risk to health. It is advisable to consult national legislation about handling biological agents in the workplace which should include classification tables of hazardous biological agents (microorganisms and parasites) related to risk level, a basis for risk assessment and preventive measures to take when using these substances

Examples of useful information systems

The interactive web site 'COSHH essentials'⁽¹³⁾ hosted by the UK Health and Safety Executive has been designed to provide simple step-by-step guidance for small firms for assessment and control of the dangerous substances that they use on the workplace.

The Gestis-substance database⁽¹⁴⁾ of the German institutions for statutory accident insurance and prevention makes information available for about 7 000 substances. The system is linked to an exposure database (DOK-MEGA)⁽¹⁵⁾ and a safety data sheet database (ISI)⁽¹⁶⁾ providing links to over 410 000 safety data sheets by 200 producers. Furthermore, it is complemented by a database of combustion and explosion characteristics (Gestis-Dust-Ex)⁽¹⁷⁾ of more than 4 000 dust samples covering most sectors of industry.

The International Chemical Safety Cards (ICSCs)⁽¹⁸⁾ developed by three cooperating international organisations, the United Nations Environment Programme (UNEP), the International Labour Office (ILO) and the World Health Organisation (WHO) in the context of the cooperation with the Commission of the European Communities, offer information for more than 1 200 substances. An ICSC card summarises essential health and safety information on chemicals for their use at the 'shop floor' level by workers and employers. The cards are also available in other languages.

⁽¹²⁾ <http://europa.eu.int/comm/enterprise/chemicals/sds/sdsdir.htm>

⁽¹³⁾ www.coshh-essentials.org.uk

⁽¹⁴⁾ <http://www.hvbg.de/bia/gestis-database>

⁽¹⁵⁾ <http://www.hvbg.de/d/bia/fac/mega/megae.htm>

⁽¹⁶⁾ <http://www.hvbg.de/d/bia/fac/isi/isi.htm>

⁽¹⁷⁾ <http://www.hvbg.de/d/bia/fac/exp/exp.htm>

⁽¹⁸⁾ <http://www.ilo.org/public/english/protection/safework/cis/products/icsc/>

Further information

More examples of successful communication of information and other factsheets from this series on dangerous substances are also available at <http://osha.eu.int/ew2003/>. This source is being continually updated and developed.

The International Labour Organisation (ILO) has compiled an instruction module for the health and safety committees on how to communicate regarding workplace health and safety issues, including chemical risks at workplaces, between the workers and the employer. This module is freely available at:

<http://www.itcilo.it/english/actrav/telearn/osh/com/comain.htm>

Checklist for information to workers

Do you know:

- ✓ about the findings of your employer's risk assessment?
- ✓ what hazards you are being exposed to?
- ✓ how you may be affected?
- ✓ what you have to do to keep yourself and others safe (i.e. how the risks are to be controlled)?
- ✓ how to check and spot when things are wrong, and to whom you should report any problems?
- ✓ about the results of any exposure monitoring or health surveillance?
- ✓ about preventive measures to be taken in case of maintenance work?
- ✓ about first aid and emergency procedures?

Checklist for good communication between the employer and the workers

- ✓ Is there a list of hazardous substances used or produced in every workplace?
- ✓ Is there a safety data sheet readily available for each classified hazardous chemical substance used?
- ✓ Has the information from the safety data sheet been translated into workplace instructions that give practical information on how to handle substances in the daily routine?
- ✓ Is each container for a hazardous substance (e.g. vats, bottles, storage tanks, etc.) labelled with the identity of the product and appropriate hazard warnings relating to both the physical hazards (e.g. explosion risk) and health hazards?
- ✓ Has a risk assessment been carried out and its findings communicated?
- ✓ Are workers asked regularly about potential health and safety problems?
- ✓ Has all relevant information, instruction and training on the hazardous substances present in the workplace been provided to workers, including the precautions they should take to protect themselves and the other employees?
- ✓ Do all employees know:
 - ✓ how to make full and proper use of all the control measures provided?
 - ✓ to whom they should report problems and defects with any control measures?
 - ✓ what they should do in the event of an accident, incident or emergency involving hazardous substances?