

No. 715/2001

Government Decree on Chemical Agents at Work

Issued in Helsinki on 9 August 2001

Section 1 – Objective

The objective of this Decree is to protect employees from any risks and harmful effects caused by chemical agents present at the workplace.

Section 2 – Scope of application

This Decree applies to work where hazardous chemical agents are present or may be present.

Section 3 – Definitions

(1) For the purposes of this Decree,

(1) *chemical agent* means any chemical element or compound, on its own or admixed, as it occurs in the natural state or as produced, used or released, including release as waste, by any work activity, whether or not produced intentionally and whether or not placed on the market;

(2) *hazardous chemical agent* means:

(a) any chemical agent which meets the criteria for classification as dangerous according to the Decision of the Ministry of Social Affairs and Health on the criteria for classification of chemicals and the labelling of chemicals (979/1997), referred to in section 19 of the Chemicals Act (744/1989), or which is mentioned on the list of dangerous substances, referred to in section 11 of the Chemicals Act, other than those substances or preparations which only meet the criteria for classification as dangerous for the environment;

(b) any chemical agent which, whilst not meeting the criteria for classification as dangerous in accordance with subparagraph a), may, because of its physico-chemical, chemical or toxicological properties and the way it is used or is present in the workplace, present a risk to the health and safety of employees, including any chemical agent assigned an occupational exposure limit value or a biological limit value under sections 12, 13, 14 or 15 ;

(3) *occupational exposure limit value* means the limit of the time-weighted average of the concentration of a chemical agent in the air within the breathing zone of the worker in relation to a specified reference period (time-weighted average period);

(4) *biological limit value* means the limit of the concentration in the appropriate biological medium of the relevant agent, its metabolite, or an indicator of effect;

(5) *risk* means the likelihood that the potential for hazard or harm will be attained, and the degree of seriousness of the hazard or harm, under the conditions of use or exposure.

Section 4 – Information for the identification of hazards

(1) In order to identify the hazards and assess the risks, the employer shall have adequate information on the properties and hazardousness of the chemical agents that are used or are present in the workplace.

(2) The employer shall ensure that the packages of hazardous chemicals have been labelled and appropriate safety data sheets for the chemicals have been provided to the workplace, in a manner separately provided by statute.

Section 5 – Safety data sheets and a list of chemicals used in the workplace

- (1) The employer shall keep an updated list of the chemicals, itemised by their trade names, which are used in the workplace. The list must reveal the classification data of each chemical and which of the chemicals have available safety data sheets.
- (2) The safety data sheets and the list of the chemicals used in the workplace shall be accessible for the employees in the workplace. The safety data sheets and the list or copies of those shall be provided to the occupational safety and health representative of the workers at the workplace in an appropriate manner.

Section 6 – Identification of hazards and assessment of risks

- (1) The employer shall identify hazards caused by the chemical agents present at the workplace and assess their possible risks to the employees' health and safety taking into account:
 - (1) the hazardous properties and quantities of the chemical agents and the possible synergistic effects of the agents;
 - (2) the information on safety and health, including safety data sheets, submitted by the supplier of the chemical;
 - (3) the level, type and duration of exposure;
 - (4) work activities where the chemical agents are used or are present, including repair and maintenance and other occasional work that causes exposure;
 - (5) occupational exposure limit values or biological limit values;
 - (6) the impact of possible prevention and protection measures;
 - (7) available conclusions from the employees' health surveillance.
- (2) The risk assessment shall be presented in an appropriate manner in writing and it shall specify the prevention and protection measures that have been taken. The risk assessment may include clarifications why a more detailed risk assessment is not necessary. The risk assessment shall be kept updated and it shall be revised especially if changes in the workplace conditions or the results of the employees' health surveillance so require.
- (3) A new work activity or process where hazardous chemical agents may be present may be started only after the risks involved have been assessed and necessary prevention measures have been taken.
- (4) If the outcome of the risk assessment reveals that there are risks to the employees' health and safety that cannot be eliminated or adequately reduced by applying the general risk reduction principles provided in section 8, the specific prevention and protection measures and surveillance referred to in sections 9, 11 and 19 shall also be applied.

Section 7 – Measurements

- (1) If the employees' exposure to hazardous chemical agents cannot be reliably assessed in any other manner, the employer shall carry out measurements regularly and always when the conditions change in a way that increases an employee's exposure. The measurement results must be compared with the limit values referred to in sections 12 to 15.
- (2) If the measurement results show that the limit values referred to in subsection 1 are not exceeded, further measurements shall, when necessary, be carried out at appropriate intervals to make sure that the situation remains unchanged. The closer the measurement results for

airborne contaminants are to the limit values, the more often measurements shall be carried out.

Section 8 – General principles for reducing risks

- (1) Taking account of the quantity and properties of the hazardous chemical agent, the employer shall observe adequate care and caution. The employer must not use a chemical for which it has no warning labels or safety data sheet or equivalent information. Separate provisions are issued regarding the warning labelling of chemicals and the compilation and provision of safety data sheets.
- (2) Risks caused by hazardous chemical agents to the employees' health and safety shall be eliminated or reduced to a minimum by:
 - (1) the design and organisation of systems of work at the workplace;
 - 2) the use of appropriate installations and work equipment and maintenance procedures to ensure health and safety;
 - (3) reducing to a minimum the number of employees exposed;
 - (4) reducing to a minimum the duration and intensity of exposure;
 - (5) appropriate hygiene measures;
 - (6) reducing the quantity of hazardous chemical agents to the minimum required for the type of work concerned; and
 - (7) appropriate working procedures including arrangements at the workplace for the safe handling, storage and transport of hazardous chemical agents and waste containing such chemical agents.

Section 9 – Specific prevention and protection measures

- (1) The employer shall ensure that the risk arising from a hazardous chemical agent to the safety and health of employees at work is eliminated or reduced to a minimum. For this purpose, the hazardous chemical agent or work process shall be eliminated or replaced with an agent or work process which is less hazardous to the employees' safety and health.
- (2) Where the nature of the activity does not permit the agent or work process to be eliminated or replaced, the employer shall ensure that the risk is reduced to a minimum by application of prevention or protection measures based on risk assessment. These measures will include, in order of priority:
 - (1) minimising the release of hazardous chemical agents which present a risk to the employees' safety and health by application of safe work processes, control and monitoring systems and appropriate equipment and materials;
 - (2) application of adequate ventilation or other structural or technical protection measures at the source of the risk; and
 - (3) use of personal protective equipment and application of other individual protection measures if exposure cannot be prevented by the means mentioned above.

Separate provisions are issued regarding employees' obligation to use protective equipment provided for them and to take care of their own and other employees' safety and health.

Section 10 – Hazards arising from the physical properties of chemical agents

- (1) The employer shall, in accordance with the general principles for risk assessment and risk reduction, take necessary measures in order to protect the employees against hazards arising from the physical properties of chemical agents, such as fire and explosion hazards. Such measures include safe storage and handling of chemical agents and separation of incompatible chemical agents. The employer shall provide sufficient control of the production plant, equipment and machinery.
- (2) The employer shall, in order of priority, :
 - (1) prevent at the workplace development of hazardous concentrations of inflammable substances and avoid the storage of hazardous quantities of chemically unstable substances or, where the nature of the work does not allow that,
 - (2) avoid the presence of ignition sources which could give rise to fires or explosions, or conditions where chemically unstable substances or mixtures of substances could cause dangerous reactions, or
 - (3) restrict the detrimental effects to the health and safety of employees in the event of fire or explosion due to the ignition of substances, or harmful effects arising from chemically unstable substances or mixtures of substances.
- (3) Separate provisions are issued regarding work equipment and protective systems intended for use in potentially explosive atmospheres.
- (4) The employer shall, when necessary, use explosion suppression equipment or take measures for explosion pressure restriction arrangements.

Section 11 – Accidents as well as hazardous incidents and emergencies

- (1) The employer shall, in the event of accidents as well as hazardous incidents and emergencies, have an action plan which includes procedures for employee protection, rescue operations, first aid treatment and for arrangement of relevant safety drills at regular intervals. The employer shall, in the event of accidents as well as hazardous incidents and emergencies, provide necessary warning and other communication systems required to signal an increased risk.
- (2) The employer shall ensure that the guidelines for procedures in the event of accidents as well as hazardous incidents and emergencies due to chemical agents are also available to the internal and external rescue services. The guidelines shall include any available information on specific hazards that may rise at the time of an accident or a hazardous incident or an emergency.
- (3) In the case of an accident or a hazardous incident or an emergency, the employer shall as soon as possible restrict its effects and inform the employees concerned thereof. The situation must be restored to safe as soon as possible. Only those employees who are essential to the carrying out of repairs and other necessary work shall be permitted to work in the affected area. These employees shall be provided with appropriate protective clothing, personal protective equipment and specialised safety equipment and accessories, which they must use as long as the hazardous situation persists. Unprotected persons shall not be permitted into the affected area.

Section 12 – Binding occupational exposure limit values

If the level of an employee's exposure exceeds such binding occupational exposure limit value as is separately provided by statute, the employer shall without delay reduce exposure to such a level that the limit value is not exceeded.

Section 13 – Concentrations known to be harmful

Provisions may be issued by a decree of the Ministry of Social Affairs and Health concerning the concentrations of workplace air contaminants that are known to be harmful (HTP values), which the employer shall take into account when assessing the quality of the workplace air, the exposure of employees and the significance of measurement results. Concentrations known to be harmful are the lowest concentrations of atmospheric contaminants that are considered by the Ministry of Social Affairs and Health to be able to cause harm to employees in the manner referred to in section 16 of the Occupational Safety and Health Act.

Section 14 – Binding limit values for biological samples

If the level of an employee's exposure exceeds such binding limit value as is separately provided by statute for the indicator of exposure measured from a biological sample, the employer shall without delay reduce exposure to such a level that the limit value is not exceeded.

Section 15 – Indicative limit values for biological samples

Provisions may be issued by a decree of the Ministry of Social Affairs and Health on indicative limit values for the biological indicator of exposure measured from an employee's biological sample. The employer shall take into account this limit value when assessing the working conditions, the exposure of employees and the results of biological exposure measurements.

Section 16 – Instruction and guidance provided for employees

- (1) The employer shall provide employees with instruction and guidance, which must include:
 - (1) information required by risk assessment in accordance with section 6 of this Decree and further information whenever the situation at the workplace changes;
 - (2) instruction and guidance on appropriate precautions and actions to be taken by employees in order to protect themselves and other workers at the workplace;
 - (3) the identity of the hazardous chemical agents occurring in the workplace, the risks to safety and health from those agents, occupational exposure limit values and other regulations; and
 - (4) instruction and guidance on the safe use and handling of chemicals as required by safety data sheets, package labels and user instructions.
- (2) The information shall be updated and provided in a manner appropriate to the outcome of the risk assessment pursuant to section 6.
- (3) The employer shall, when necessary, draw up detailed user and safety instructions in writing for hazardous chemicals to be associated with the instruction and guidance.
- (4) If detailed user and safety instructions on the safe use of a chemical are available, the employer shall, before the work is started, make sure that the employee has understood the instructions.
- (5) The employer shall ensure that the contents of containers and pipes and the properties of those contents as well as any associated hazards are clearly identifiable. Separate provisions are issued concerning the labelling of the containers of hazardous chemicals.

Section 17 – Cooperation

Separate provisions are issued on cooperation between employers and employees.

Section 18 – Prohibitions

- (1) The production, manufacture and use at work of the chemical agents and activities involving chemical agents set out in the Annex shall be prohibited to the extent specified therein.
- (2) The competent occupational safety and health authority may permit derogations from the prohibitions of subsection 1 in the following circumstances:
 - (1) for the purpose of scientific research and testing, including analysis;
 - (2) for activities intended to eliminate chemical agents that are present in the form of by-products or waste products;
 - (3) for the production of the chemical agents referred to in subsection 1 as intermediates which immediately re-react further.
- (3) The exposure of employees to chemical agents referred to in subsection 1 shall be prevented, in particular by providing that the production and earliest possible use of such chemical agents as intermediates take place in a single closed system, from which the aforesaid chemical agents may be removed only to the extent necessary to monitor the process or to service the system.
- (4) When applying for derogation, the employer shall submit the following information to the competent occupational safety and health authority:
 - (1) the reason for requesting the derogation;
 - (2) the quantity of the chemical agent to be used annually;
 - (3) the activities and/or reactions or processes involved;
 - (4) the number of employees liable to be exposed and involved in handling the chemical agent;
 - (5) the measures envisaged to protect the safety and health of employees concerned;
 - (6) the technical and organisational measures taken to prevent the exposure of employees.

Section 19 – Health surveillance

- (1) Separate provisions are issued on the employer's obligation to provide occupational health care.
- (2) If as an outcome of health surveillance carried out by an occupational health-care professional or in some other manner it is found that an employee suffers from a disease or an adverse health effect which from the point of view of occupational medicine can be considered to be due to exposure to a hazardous chemical agent at work or that a binding biological limit value has been exceeded, the employer shall:
 - (1) review the risk assessment where appropriate;
 - (2) review the measures provided to eliminate or reduce the risk;
 - (3) take into account the advice of the occupational health-care professional in implementing any measures required to eliminate or reduce the risk, including the possibility of assigning the employee to work where there is no risk of exposure; and
 - (4) ensure continued health surveillance and provide for a review of the health status of any other employee who has been similarly exposed, in a manner separately provided by statute.

Section 20 – Issuing regulations on the measurement of atmospheric contaminants

- (1) The Ministry of Social Affairs and Health may generally or in respect of a certain industry, field of activity, chemical or type of exposure, and the office of the competent occupational safety and health inspectorate may in respect to a certain workplace, issue regulations laying down:
 - (1) when and how often measurements of chemical agents shall be made;
 - (2) which methods of assessment, measurement, sampling and analysis shall be used in the measurement procedure;
 - (3) how and to whom the results of measurements shall be reported;
 - (4) how and how long information on exposure shall be preserved; and
 - (5) that, for specific reasons, the measurements shall be made by an independent institute of measurement.
- (2) When regulations on the methods of measurement, sampling and analysis are issued, methods that are generally acceptable and available shall be taken into account.

Section 21 – Further provisions

Further provisions on the determination, assessment and control of risks in accordance with this Decree and on prevention and protection measures shall, where necessary, be issued by a decree of the Ministry of Social Affairs and Health.

Section 22 – Entry into force

- (1) This Decree enters into force on 1 September 2001.
- (2) This Decree repeals the Government Decision of 8 October 1992 on the protection of employees from risks associated with exposure to chemical agents (920/1992), as amended.

PROHIBITIONS

The production, manufacture and use at work of the chemical agents and activities involving chemical agents set out below are prohibited. The prohibition does not apply if the chemical agent is present in another chemical agent, or as a constituent of waste, provided that its individual concentration therein is less than the limit specified.

Chemical agents

EINECS⁽¹⁾ No.	CAS⁽²⁾ No.	Name of chemical agent	Concentration limit in the case of derogations
202-080-4	91-59-8	2-Naphthylamine and its salts	0,1 % by weight
202-177-1	92-67-1	4-Aminodiphenyl and its salts	0,1 % by weight
202-199-1	92-87-5	Benzidine and its salts	0,1 % by weight
202-204-7	92-93-3	4-Nitrodiphenyl	0,1 % by weight

⁽¹⁾ EINECS: European Inventory of Existing Commercial Substances.

⁽²⁾ CAS: Chemical Abstracts Service.