



International
Labour
Organization

All you need to know

**ILO CHEMICALS
CONVENTION No.170**

& ITS RECOMMENDATION No.177

Labour Administration, Labour Inspection and Occupational Safety and Health Branch (LABADMIN/OSH)

Governance and Tripartism Department

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All you need to know

**ILO CHEMICALS
CONVENTION No.170
& ITS RECOMMENDATION No.177**

“It is essential to prevent or reduce the incidence of chemically induced illnesses and injuries at work.”

Preamble of the ILO Chemicals Convention No.170

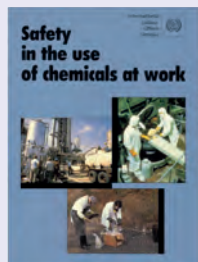
ILO Chemicals Convention, 1990 (No. 170) and ILO Chemicals Recommendation, 1990 (No. 177) are the main ILO instruments dealing with chemicals. They provide the **basis for the sound management of all types of chemicals at the workplace.**

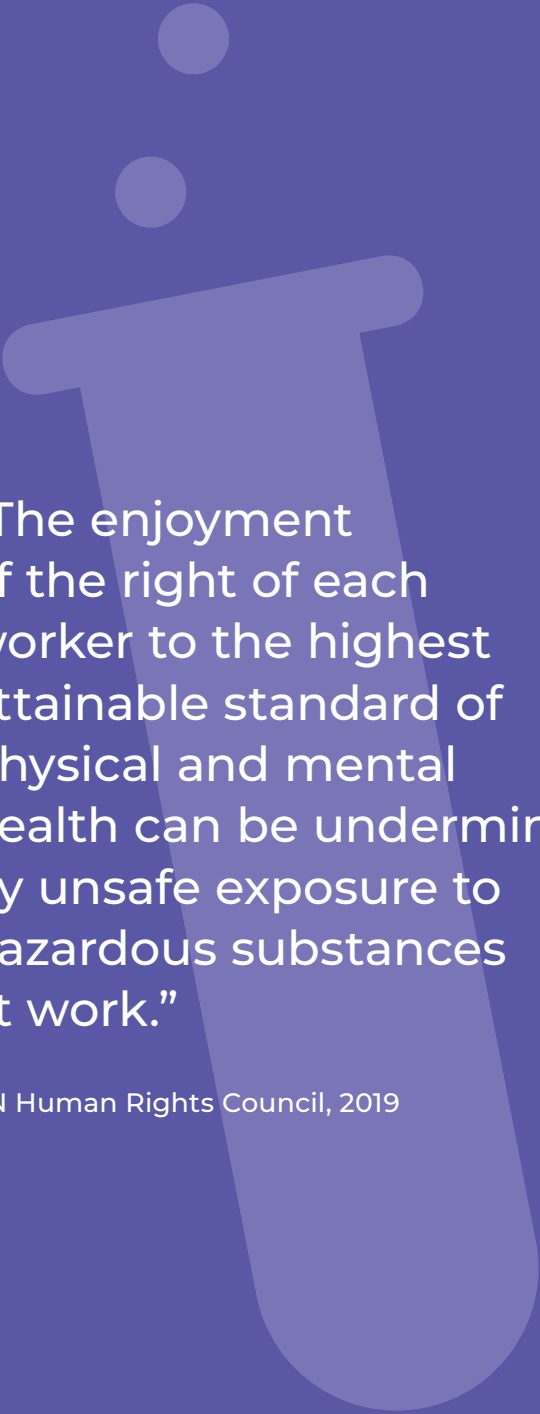
Convention No. 170 and Recommendation No. 177 were adopted in 1990 and were among **the first international instruments dealing with all major chemical hazards** in a comprehensive manner.

The text of Convention No. 170 served as the **basis for the negotiation of the Rotterdam Convention** on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, which was adopted in 1998.

Convention No. 170 has also been a **basis for the development of the widely used Globally Harmonized System of Classification and Labelling of Chemicals (GHS).**

Convention No. 170 and Recommendation No. 177 are complemented by the **ILO Code of Practice on the Safety in the use of chemicals at work.** The code is a guidance tool, which provides detailed information on the implementation of both the Convention and the Recommendation.



A decorative graphic on a blue background. It features two solid blue circles at the top, one above the other. Below them is a large, light blue, semi-transparent T-shaped graphic that tapers towards the bottom. The text is overlaid on the left side of the T-shape.

“The enjoyment
of the right of each
worker to the highest
attainable standard of
physical and mental
health can be undermined
by unsafe exposure to
hazardous substances
at work.”

UN Human Rights Council, 2019

Convention No.170 and Recommendation No.177 in a nutshell:

Convention No. 170 and Recommendation No. 177 **cover all hazardous chemicals**. They therefore also **take into account any new substances**, developed after their adoption. They focus on chemical risks at the workplace but also **protect the general public and the environment**.

Convention No. 170 prescribes the **classification** of all chemicals by hazards and other properties, the **labelling** of chemicals with appropriate hazard information and symbols as well as the provision of **safety data sheets** to workers on all hazardous chemicals used at their workplace. As a follow up to the Convention's adoption, the **GHS** was developed.



Convention No. 170 and Recommendation No. 177 oblige ratifying states to implement a general **national policy** on the prevention of occupational accidents and work-related diseases caused by chemicals and to minimize the causes of hazards inherent in the working environment.

The instruments also define detailed **responsibilities for employers** regarding the assessment of chemical hazards at their worksites and measures to limit the exposure of workers to hazardous chemicals, to protect workers from chemicals they are exposed to and to ensure an environmentally sound disposal of chemical waste. Employers are also obliged to constantly inform and train workers on chemical risks at the workplace.

Overall, Convention No. 170 and Recommendation No. 177 follow an approach of **prioritizing prevention over protection**.

ILO Chemicals Convention, 1990 (No.170)

Preamble

The General Conference of the International Labour Organisation,
Having been convened at Geneva by the Governing Body of the
International Labour Office, and having met in its 77th Session
on 6 June 1990, and

Noting the relevant international labour Conventions and
Recommendations and, in particular, the Benzene Convention
and Recommendation, 1971, the Occupational Cancer Conven-
tion and Recommendation, 1974, the Working Environment (Air
Pollution, Noise and Vibration) Convention and Recommendation,
1977, the Occupational Safety and Health Convention and
Recommendation, 1981, the Occupational Health Services
Convention and Recommendation, 1985, the Asbestos Conven-
tion and Recommendation, 1986, and the list of occupational
diseases, as amended in 1980, appended to the Employment
Injury Benefits Convention, 1964, and

Noting that the protection of workers from the harmful effects of
chemicals also enhances the protection of the general public and
the environment, and

Noting that workers have a need for, and right to, information
about the chemicals they use at work, and

Considering that it is essential to prevent or reduce the incidence
of chemically induced illnesses and injuries at work by:

- (a) ensuring that all chemicals are evaluated to determine their
hazards;
- (b) providing employers with a mechanism to obtain from
suppliers information about the chemicals used at work so
that they can implement effective programmes to protect
workers from chemical hazards;
- (c) providing workers with information about the chemicals
at their workplaces, and about appropriate preventive
measures so that they can effectively participate in protective
programmes;
- (d) establishing principles for such programmes to ensure that
chemicals are used safely, and

Having regard to the need for co-operation within the International Programme on Chemical Safety between the International Labour Organisation, the United Nations Environment Programme and the World Health Organisation as well as with the Food and Agriculture Organisation of the United Nations and the United Nations Industrial Development Organisation, and noting the relevant instruments, codes and guide-lines promulgated by these organisations, and

Having decided upon the adoption of certain proposals with regard to safety in the use of chemicals at work, which is the fifth item on the agenda of the session, and

Having determined that these proposals shall take the form of an international Convention;

adopts this twenty-fifth day of June of the year one thousand nine hundred and ninety the following Convention, which may be cited as the Chemicals Convention, 1990:

PART I. SCOPE AND DEFINITIONS

Article 1

1. This Convention applies to all branches of economic activity in which chemicals are used.
2. The competent authority of a Member ratifying this Convention, after consulting the most representative organisations of employers and workers concerned, and on the basis of an assessment of the hazards involved and the protective measures to be applied:
 - (a) may exclude particular branches of economic activity, undertakings or products from the application of the Convention, or certain provisions thereof, when:
 - (i) special problems of a substantial nature arise; and
 - (ii) the overall protection afforded in pursuance of national law and practice is not inferior to that which would result from the full application of the provisions of the Convention;
 - (b) shall make special provision to protect confidential information whose disclosure to a competitor would be liable to cause harm to an employer's business so long as the safety and health of workers are not compromised thereby.

3. This Convention does not apply to articles which will not expose workers to a hazardous chemical under normal or reasonably foreseeable conditions of use.
4. This Convention does not apply to organisms, but does apply to chemicals derived from organisms.

Article 2

For the purposes of this Convention:

- (a) the term chemicals means chemical elements and compounds, and mixtures thereof, whether natural or synthetic;
- (b) the term hazardous chemical includes any chemical which has been classified as hazardous in accordance with Article 6 or for which relevant information exists to indicate that the chemical is hazardous;
- (c) the term use of chemicals at work means any work activity which may expose a worker to a chemical, including:
 - (i) the production of chemicals;
 - (ii) the handling of chemicals;
 - (iii) the storage of chemicals;
 - (iv) the transport of chemicals;
 - (v) the disposal and treatment of waste chemicals;
 - (vi) the release of chemicals resulting from work activities;
 - (vii) the maintenance, repair and cleaning of equipment and containers for chemicals;
- (d) the term branches of economic activity means all branches in which workers are employed, including the public service;
- (e) the term article means an object which is formed to a specific shape or design during its manufacture or which is in its natural shape, and whose use in that form is dependent in whole or in part on its shape or design;
- (f) the term workers' representatives means persons who are recognised as such by national law or practice, in accordance with the Workers' Representatives Convention, 1971.

PART II. GENERAL PRINCIPLES

Article 3

The most representative organisations of employers and workers concerned shall be consulted on the measures to be taken to give effect to the provisions of this Convention.

Article 4

In the light of national conditions and practice and in consultation with the most representative organisations of employers and workers, each Member shall formulate, implement and periodically review a coherent policy on safety in the use of chemicals at work.

Article 5

The competent authority shall have the power, if justified on safety and health grounds, to prohibit or restrict the use of certain hazardous chemicals, or to require advance notification and authorisation before such chemicals are used.

PART III. CLASSIFICATION AND RELATED MEASURES

Article 6

CLASSIFICATION SYSTEMS

1. Systems and specific criteria appropriate for the classification of all chemicals according to the type and degree of their intrinsic health and physical hazards and for assessing the relevance of the information required to determine whether a chemical is hazardous shall be established by the competent authority, or by a body approved or recognised by the competent authority, in accordance with national or international standards.
2. The hazardous properties of mixtures composed of two or more chemicals may be determined by assessments based on the intrinsic hazards of their component chemicals.
3. In the case of transport, such systems and criteria shall take into account the United Nations Recommendations on the transport of dangerous goods.
4. The classification systems and their application shall be progressively extended.

Article 7

LABELLING AND MARKING

1. All chemicals shall be marked so as to indicate their identity.
2. Hazardous chemicals shall in addition be labelled, in a way easily understandable to the workers, so as to provide essential information regarding their classification, the hazards they present and the safety precautions to be observed.

3. (1) Requirements for marking or labelling chemicals pursuant to paragraphs 1 and 2 of this Article shall be established by the competent authority, or by a body approved or recognised by the competent authority, in accordance with national or international standards.

(2) In the case of transport, such requirements shall take into account the United Nations Recommendations on the transport of dangerous goods.

Article 8

CHEMICAL SAFETY DATA SHEETS

1. For hazardous chemicals, chemical safety data sheets containing detailed essential information regarding their identity, supplier, classification, hazards, safety precautions and emergency procedures shall be provided to employers.
2. Criteria for the preparation of chemical safety data sheets shall be established by the competent authority, or by a body approved or recognised by the competent authority, in accordance with national or international standards.
3. The chemical or common name used to identify the chemical on the chemical safety data sheet shall be the same as that used on the label.

Article 9

RESPONSIBILITIES OF SUPPLIERS

1. Suppliers of chemicals, whether manufacturers, importers or distributors, shall ensure that:
 - (a) such chemicals have been classified in accordance with Article 6 on the basis of knowledge of their properties and a search of available information or assessed in accordance with paragraph 3 below;
 - (b) such chemicals are marked so as to indicate their identity in accordance with Article 7, paragraph 1;
 - (c) hazardous chemicals they supply are labelled in accordance with Article 7, paragraph 2;
 - (d) chemical safety data sheets are prepared for such hazardous chemicals in accordance with Article 8, paragraph 1, and provided to employers.
2. Suppliers of hazardous chemicals shall ensure that revised labels and chemical safety data sheets are prepared and provided to employers, by a method which accords with national law and practice, whenever new relevant safety and health information becomes available.

3. Suppliers of chemicals which have not yet been classified in accordance with Article 6 shall identify the chemicals they supply and assess the properties of these chemicals on the basis of a search of available information in order to determine whether they are hazardous chemicals.

PART IV. RESPONSIBILITIES OF EMPLOYERS

Article 10

IDENTIFICATION

1. Employers shall ensure that all chemicals used at work are labelled or marked as required by Article 7 and that chemical safety data sheets have been provided as required by Article 8 and are made available to workers and their representatives.
2. Employers receiving chemicals that have not been labelled or marked as required under Article 7, or for which chemical safety data sheets have not been provided as required under Article 8, shall obtain the relevant information from the supplier or from other reasonably available sources, and shall not use the chemicals until such information is obtained.
3. Employers shall ensure that only chemicals which are classified in accordance with Article 6 or identified and assessed in accordance with Article 9, paragraph 3, and labelled or marked in accordance with Article 7 are used and that any necessary precautions are taken when they are used.
4. Employers shall maintain a record of hazardous chemicals used at the workplace, cross-referenced to the appropriate chemical safety data sheets. This record shall be accessible to all workers concerned and their representatives.

Article 11

TRANSFER OF CHEMICALS

Employers shall ensure that when chemicals are transferred into other containers or equipment, the contents are indicated in a manner which will make known to workers their identity, any hazards associated with their use and any safety precautions to be observed.

Article 12

EXPOSURE

Employers shall:

- (a) ensure that workers are not exposed to chemicals to an extent which exceeds exposure limits or other exposure criteria for the evaluation and control of the working environment established by the competent authority, or by a body approved or recognised by the competent authority, in accordance with national or international standards;
- (b) assess the exposure of workers to hazardous chemicals;
- (c) monitor and record the exposure of workers to hazardous chemicals when this is necessary to safeguard their safety and health or as may be prescribed by the competent authority;
- (d) ensure that the records of the monitoring of the working environment and of the exposure of workers using hazardous chemicals are kept for a period prescribed by the competent authority and are accessible to the workers and their representatives.

Article 13

OPERATIONAL CONTROL

1. Employers shall make an assessment of the risks arising from the use of chemicals at work, and shall protect workers against such risks by appropriate means, such as:
 - (a) the choice of chemicals that eliminate or minimise the risk;
 - (b) the choice of technology that eliminates or minimises the risk;
 - (c) the use of adequate engineering control measures;
 - (d) the adoption of working systems and practices that eliminate or minimise the risk;
 - (e) the adoption of adequate occupational hygiene measures;
 - (f) where recourse to the above measures does not suffice, the provision and proper maintenance of personal protective equipment and clothing at no cost to the worker, and the implementation of measures to ensure their use.
2. Employers shall:
 - (a) limit exposure to hazardous chemicals so as to protect the safety and health of workers;
 - (b) provide first aid;

- (c) make arrangements to deal with emergencies.

Article 14

DISPOSAL

Hazardous chemicals which are no longer required and containers which have been emptied but which may contain residues of hazardous chemicals, shall be handled or disposed of in a manner which eliminates or minimises the risk to safety and health and to the environment, in accordance with national law and practice.

Article 15

INFORMATION AND TRAINING

Employers shall:

- (a) inform the workers of the hazards associated with exposure to chemicals used at the workplace;
- (b) instruct the workers how to obtain and use the information provided on labels and chemical safety data sheets;
- (c) use the chemical safety data sheets, along with information specific to the workplace, as a basis for the preparation of instructions to workers, which should be written if appropriate;
- (d) train the workers on a continuing basis in the practices and procedures to be followed for safety in the use of chemicals at work.

Article 16

CO-OPERATION

Employers, in discharging their responsibilities, shall co-operate as closely as possible with workers or their representatives with respect to safety in the use of chemicals at work.

PART V. DUTIES OF WORKERS

Article 17

1. Workers shall co-operate as closely as possible with their employers in the discharge by the employers of their responsibilities and comply with all procedures and practices relating to safety in the use of chemicals at work.

2. Workers shall take all reasonable steps to eliminate or minimise risk to themselves and to others from the use of chemicals at work.

PART VI. RIGHTS OF WORKERS AND THEIR REPRESENTATIVES

Article 18

1. Workers shall have the right to remove themselves from danger resulting from the use of chemicals when they have reasonable justification to believe there is an imminent and serious risk to their safety or health, and shall inform their supervisor immediately.
2. Workers who remove themselves from danger in accordance with the provisions of the previous paragraph or who exercise any other rights under this Convention shall be protected against undue consequences.
3. Workers concerned and their representatives shall have the right to:
 - (a) information on the identity of chemicals used at work, the hazardous properties of such chemicals, precautionary measures, education and training;
 - (b) the information contained in labels and markings;
 - (c) chemical safety data sheets;
 - (d) any other information required to be kept by this Convention.
4. Where disclosure of the specific identity of an ingredient of a chemical mixture to a competitor would be liable to cause harm to the employer's business, the employer may, in providing the information required under paragraph 3 above, protect that identity in a manner approved by the competent authority under Article 1, paragraph 2 (b).

PART VII. RESPONSIBILITY OF EXPORTING STATES

Article 19

When in an exporting member State all or some uses of hazardous chemicals are prohibited for reasons of safety and health at work, this fact and the reasons for it shall be communicated by the exporting member State to any importing country.



“The protection of workers from the harmful effects of chemicals also enhances the protection of the general public and the environment.”

ILO Chemicals Convention, 1990 (No. 170)

Chemicals Recommendation, 1990 (No.177)

Preamble

The General Conference of the International Labour Organisation,
Having been convened at Geneva by the Governing Body of the
International Labour Office, and having met In Its 77th Session
on 6 June 1990, and

Having decided upon the adoption of certain proposals with
regard to safety in the use of chemicals at work, which is the
fifth item on the agenda of the session, and

Having determined that these proposals shall take the form of
a Recommendation supplementing the Chemicals Convention,
1990;

adopts this twenty-fifth day of June of the year one thousand
nine hundred and ninety the following Recommendation, which
may be cited as the Chemicals Recommendation, 1990.

I. GENERAL PROVISIONS

1. The provisions of this Recommendation should be applied in conjunction with those of the Chemicals Convention, 1990 (hereafter referred to as “the Convention”).
2. The most representative organisations of employers and workers concerned should be consulted on the measures to be taken to give effect to the provisions of this Recommendation.
3. The competent authority should specify categories of workers who for reasons of safety and health are not allowed to use specified chemicals or are allowed to use them only under conditions prescribed in accordance with national laws or regulations.
4. The provisions of this Recommendation should also apply to such self-employed persons as may be specified by national laws or regulations.

5. The special provisions established by the competent authority to protect confidential information, under Article 1, paragraph 2(b), and Article 18, paragraph 4, of the Convention, should:
 - (a) limit the disclosure of confidential information to those who have a need related to workers' safety and health;
 - (b) ensure that those who obtain confidential information agree to use it only to address safety and health needs and otherwise to protect its confidentiality;
 - (c) provide that relevant confidential information be disclosed immediately in an emergency;
 - (d) provide for procedures to consider promptly the validity of the confidentiality claim and of the need for the information withheld where there is a disagreement regarding disclosure.

II. CLASSIFICATION AND RELATED MEASURES

CLASSIFICATION

6. The criteria for the classification of chemicals established pursuant to Article 6, paragraph 1, of the Convention should be based upon the characteristics of chemicals including:
 - (a) toxic properties, including both acute and chronic health effects in all parts of the body;
 - (b) chemical or physical characteristics, including flammable, explosive, oxidising and dangerously reactive properties;
 - (c) corrosive and irritant properties;
 - (d) allergenic and sensitising effects;
 - (e) carcinogenic effects;
 - (f) teratogenic and mutagenic effects;
 - (g) effects on the reproductive system.
7. (1) As far as is reasonably practicable, the competent authority should compile and periodically update a consolidated list of the chemical elements and compounds used at work, together with relevant hazard information.

(2) For chemical elements and compounds not yet included in the consolidated list, the manufacturers or importers should, unless exempted, be required to transmit to the

competent authority, prior to use at work, and in a manner consistent with the protection of confidential information under Article 1, paragraph 2 (b), of the Convention, such information as is necessary for the maintenance of the list.

LABELLING AND MARKING

8. (1) The requirements for the labelling and marking of chemicals established pursuant to Article 7 of the Convention, should be such as to enable persons handling or using chemicals to recognise and distinguish between them both when receiving and when using them, so that they may be used safely.
- (2) The labelling requirements for hazardous chemicals should, in conformity with existing national or international systems, cover:
 - (a) the information to be given on the label including as appropriate:
 - (i) trade names;
 - (ii) identity of the chemical;
 - (iii) name, address and telephone number of the supplier;
 - (iv) hazard symbols;
 - (v) nature of the special risks associated with the use of the chemical;
 - (vi) safety precautions;
 - (vii) identification of the batch;
 - (viii) the statement that a chemical safety data sheet giving additional information is available from the employer;
 - (ix) the classification assigned under the system established by the competent authority;
 - (b) the legibility, durability and size of the label;
 - (c) the uniformity of labels and symbols, including colours.
- (3) The label should be easily understandable by workers.
- (4) In the case of chemicals not covered by subparagraph (2) above, the marking may be limited to the identity of the chemical.

9. Where it is impracticable to label or mark a chemical in view of the size of the container or the nature of the package, provision should be made for other effective means of recognition such as tagging or accompanying documents. However, all containers of hazardous chemicals should indicate the hazards of the contents through appropriate wording or symbols.

CHEMICAL SAFETY DATA SHEETS

10. (1) The criteria for the preparation of chemical safety data sheets for hazardous chemicals should ensure that they contain essential information including, as applicable:
 - (a) chemical product and company identification (including trade or common name of the chemical and details of the supplier or manufacturer);
 - (b) composition/information on ingredients (in a way that clearly identifies them for the purpose of conducting a hazard evaluation);
 - (c) hazards identification;
 - (d) first-aid measures;
 - (e) fire-fighting measures;
 - (f) accidental release measures;
 - (g) handling and storage;
 - (h) exposure controls/personal protection (including possible methods of monitoring workplace exposure);
 - (i) physical and chemical properties;
 - (j) stability and reactivity;
 - (k) toxicological information (including the potential routes of entry into the body and the possibility of synergism with other chemicals or hazards encountered at work);
 - (l) ecological information;
 - (m) disposal considerations;
 - (n) transport information;
 - (o) regulatory information;
 - (p) other information (including the date of preparation of the chemical safety data sheet).

(2) Where the names or concentrations of the ingredients referred to in subparagraph (1) (b) above constitute confidential information, they may, in accordance with Article 1, paragraph 2 (b), of the Convention, be omitted from the chemical safety data sheet. In accordance with Paragraph 5 of this Recommendation the information should be disclosed on request and in writing to the competent authority and to concerned employers, workers and their representatives who agree to use the information only for the protection of workers' safety and health and not otherwise to disclose it.

III. RESPONSIBILITIES OF EMPLOYERS

MONITORING OF EXPOSURE

11. (1) Where workers are exposed to hazardous chemicals, the employer should be required to:
 - (a) limit exposure to such chemicals so as to protect the health of workers;
 - (b) assess, monitor and record, as necessary, the concentration of airborne chemicals at the workplace,
- (2) Workers and their representatives and the competent authority should have access to these records.
- (3) Employers should keep the records provided for in this Paragraph for a period of time determined by the competent authority.

OPERATIONAL CONTROL WITHIN THE WORKPLACE

12. (1) Measures should be taken by employers to protect workers against hazards arising from the use of chemicals at work, based upon the criteria established pursuant to Paragraphs 13 to 16 below.
- (2) In accordance with the Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy, adopted by the Governing Body of the International Labour Office, a national or multinational enterprise with more than one establishment should provide safety measures relating to the prevention and control of, and protection against, health hazards due to occupational exposure to hazardous chemicals, without discrimination, to the workers in all its establishments regardless of the place or country in which they are situated.

13. The competent authority should ensure that criteria are established for safety in the use of hazardous chemicals, including provisions covering, as applicable:
- (a) the risk of acute or chronic diseases due to entry into the body by inhalation, skin absorption or ingestion;
 - (b) the risk of injury or disease from skin or eye contact;
 - (c) the risk of injury from fire, explosion or other events resulting from physical properties or chemical reactivity;
 - (d) the precautionary measures to be taken through:
 - (i) the choice of chemicals that eliminate or minimise such risks;
 - (ii) the choice of processes, technology and installations that eliminate or minimise such risks;
 - (iii) the use and proper maintenance of engineering control measures;
 - (iv) the adoption of working systems and practices that eliminate or minimise such risks;
 - (v) the adoption of adequate personal hygiene measures and provision of adequate sanitary facilities;
 - (vi) the provision, maintenance and use of suitable personal protective equipment and clothing, at no cost to the worker where the above measures have not proved sufficient to eliminate such risks;
 - (vii) the use of signs and notices;
 - (viii) adequate preparations for emergencies.
14. The competent authority should ensure that criteria are established for safety in the storage of hazardous chemicals, including provisions covering, as applicable:
- (a) the compatibility and segregation of stored chemicals;
 - (b) the properties and quantity of chemicals to be stored;
 - (c) the security and siting of and access to stores;
 - (d) the construction, nature and integrity of storage containers;
 - (e) loading and unloading of storage containers;
 - (f) labelling and relabelling requirements;
 - (g) precautions against accidental release, fire, explosion and chemical reactivity;
 - (h) temperature, humidity and ventilation;
 - (i) precautions and procedures in case of spillage;
 - (j) emergency procedures;

- (k) possible physical and chemical changes in stored chemicals.
15. The competent authority should ensure that criteria consistent with national or international transport regulations are established for the safety of workers involved in the transport of hazardous chemicals, including provisions covering, as applicable:
- (a) the properties and quantity of chemicals to be transported;
 - (b) the nature, integrity and protection of packagings and containers used in transport, including pipelines;
 - (c) the specifications of the vehicle used in transport;
 - (d) the routes to be taken;
 - (e) the training and qualifications of transport workers;
 - (f) labelling requirements;
 - (g) loading and unloading;
 - (h) procedures in case of spillage.
16. (1) The competent authority should ensure that criteria consistent with national or international regulations regarding disposal of hazardous waste are established for procedures to be followed in the disposal and treatment of hazardous chemicals and hazardous waste products with a view to ensuring the safety of workers.
- (2) These criteria should include provisions covering, as applicable:
- (a) the method of identification of waste products;
 - (b) the handling of contaminated containers;
 - (c) the identification, construction, nature, integrity and protection of waste containers;
 - (d) the effects on the working environment;
 - (e) the demarcation of disposal areas;
 - (f) the provision, maintenance and use of personal protective equipment and clothing;
 - (g) the method of disposal or treatment.
17. The criteria for the use of chemicals at work established pursuant to the provisions of the Convention and this Recommendation should be as consistent as possible with the protection of the general public and the environment and any criteria established for that purpose.

MEDICAL SURVEILLANCE

- 18.(1) The employer, or the institution competent under national law and practice, should be required to arrange, through a method which accords with national law and practice, such medical surveillance of workers as is necessary:
- (a) for the assessment of the health of workers in relation to hazards caused by exposure to chemicals;
 - (b) for the diagnosis of work-related diseases and injuries caused by exposure to hazardous chemicals.
- (2) Where the results of medical tests or investigations reveal clinical or preclinical effects, measures should be taken to prevent or reduce exposure of the workers concerned, and to prevent further deterioration of their health.
- (3) The results of medical examinations should be used to determine health status with respect to exposure to chemicals, and should not be used to discriminate against the worker.
- (4) Records resulting from medical surveillance of workers should be kept for a period of time and by persons prescribed by the competent authority.
- (5) Workers should have access to their own medical records, either personally or through their own physicians.
- (6) The confidentiality of individual medical records should be respected in accordance with generally accepted principles of medical ethics.
- (7) The results of medical examinations should be clearly explained to the workers concerned.
- (8) Workers and their representatives should have access to the results of studies prepared from medical records, where individual workers cannot be identified.
- (9) The results of medical records should be made available to prepare appropriate health statistics and epidemiological studies, provided anonymity is maintained, where this may aid in the recognition and control of occupational diseases.

FIRST AID AND EMERGENCIES

19. In accordance with any requirements laid down by the competent authority, employers should be required to maintain procedures, including first-aid arrangements, to deal with emergencies and accidents resulting from the use of hazardous chemicals at work and to ensure that workers are trained in these procedures.

IV. CO-OPERATION

20. Employers, workers and their representatives should co-operate as closely as possible in the application of measures prescribed pursuant to this Recommendation.

21. Workers should be required to:

- (a) take care as far as possible of their own safety and health and of that of other persons who may be affected by their acts or omissions at work in accordance with their training and with instructions given by their employer;
- (b) use properly all devices provided for their protection or the protection of others;
- (c) report forthwith to their supervisor any situation which they believe could present a risk, and which they cannot properly deal with themselves.

22. Publicity material concerning hazardous chemicals intended for use at work should call attention to their hazards and the necessity to take precautions.

23. Suppliers should, on Request, provide employers with such information as is available and required for the evaluation of any unusual hazards which might result from a particular use of a chemical at work.

V. RIGHTS OF WORKERS

24. (1) Workers and their representatives should have the right to:

- (a) obtain chemical safety data sheets and other information from the employer so as to enable them to take adequate precautions, in co-operation with their employer, to protect workers against risks from the use of hazardous chemicals at work;

(b) request and participate in an investigation by the employer or the competent authority of possible risks resulting from the use of chemicals at work.

(2) Where the information requested is confidential in accordance with Article 1, paragraph 2 (b), and Article 18, paragraph 4, of the Convention, employers may require the workers or workers' representatives to limit its use to the evaluation and control of possible risks arising from the use of chemicals at work, and to take reasonable steps to ensure that this information is not disclosed to potential competitors.

(3) Having regard to the Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy, multinational enterprises should make available, upon request, to workers concerned workers' representatives, the competent authority and employers' and workers' organisations in all countries in which they operate, information on the standards and procedures related to the use of hazardous chemicals relevant to their local operations, which they observe in other countries.

25.(1) Workers should have the right:

- (a) to bring to the attention of their representatives, the employer or the competent authority, potential hazards arising from the use of chemicals at work;
- (b) to remove themselves from danger resulting from the use of chemicals when they have reasonable justification to believe there is an imminent and serious risk to their safety or health, and should inform their supervisor immediately;
- (c) in the case of a health condition, such as chemical sensitisation, placing them at increased risk of harm from a hazardous chemical, to alternative work not involving that chemical, if such work is available and if the workers concerned have the qualifications or can reasonably be trained for such alternative work;
- (d) to compensation if the case referred to in subparagraph (1) (c) results in loss of employment;
- (e) to adequate medical treatment and compensation for injuries and diseases resulting from the use of chemicals at work.

(2) Workers who remove themselves from danger in accordance with the provisions of subparagraph (1) (b) or who exercise any of their rights under this Recommendation should be protected against undue consequences.

(3) Where workers have removed themselves from danger in accordance with subparagraph (1) (b), the employer, in co-operation with workers and their representatives, should immediately investigate the risk and take any corrective steps necessary.

(4) Women workers should have the right, in the case of pregnancy or lactation, to alternative work not involving the use of, or exposure to, chemicals hazardous to the health of the unborn or nursing child, where such work is available, and the right to return to their previous jobs at the appropriate time.

26. Workers should receive:

- (a) information on the classification and labelling of chemicals and on chemical safety data sheets in forms and languages which they easily understand;
- (b) information on the risks which may arise from the use of hazardous chemicals in the course of their work;
- (c) instruction, written or oral, based on the chemical safety data sheet and specific to the workplace if appropriate;
- (d) training and, where necessary, retraining in the methods which are available for the prevention and control of, and for protection against, such risks, including correct methods of storage, transport and waste disposal as well as emergency and first-aid measures.



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