INTERNATIONAL LABOUR ORGANIZATION

Geneva, Switzerland.

TITLE

R177 Chemicals Recommendation, 1990

REF

RECOMMENDATION CONCERNING SAFETY IN

THE USE OF CHEMICALS AT WORK

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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.

TEXT

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.

XREF: #CONVENTIONS:C170:Chemicals Convention, 1990