

Based on Article 7 paragraph 2 of the Law on Safety and Health at Work (Official Gazette of RS No. 101/05),
the Minister of Labour and Social Policy adopts the

RULEBOOK
on preventive measures for safe and healthy work during exposure to carcinogens or mutagens

General Provisions

Article 1

This Rulebook lays down the minimum requirements Employer shall met in providing implementation of preventive measures for elimination or reduction of risks from damage to health of employees that occurs or may occur during exposure to carcinogens or mutagens at workplace and limit value of exposure.

Scope

Article 2

This Rulebook shall not apply to:

- 1) Workplaces at which employees are exposed to ionizing radiation;
- 2) Workplaces at which employees are exposed or could be exposed to dust originating from asbestos or a material containing asbestos, except in cases when provisions of this Rulebook stipulate a higher level of safety and health at work.

Meaning of Terms

Article 3

For the purpose of this Rulebook, the following terms shall have the meanings hereby assigned to them:

1) carcinogen is:

(1) every substance that meets the criteria for classification into category 1 or 2 of carcinogen substances labelled with risk mark R45 or R49 according to the provision governing classification, packaging, marking and advertising of chemicals and certain products (hereinafter: DSD/DPD Rulebook), or into the class and category of hazard Carcinogenicity category 1A or 1B labelled by notification of hazard H350 or H350i pursuant to provision governing classification packaging, marking and advertising of chemicals and certain products of UN Globally Harmonized System for Classification and Labelling (hereinafter: CLP/GHS Rulebook),

(2) mixture containing at least one substance from paragraph 1, point 1, sub point 1 the individual concentration of which is higher of equal to limit concentration for classification of mixture into the class of hazard – carcinogen category 1 or 2 pursuant to DSD/DPD Rulebook, or class and category of hazard Carcinogenicity category 1A or 1B pursuant to CLP/GHS Rulebook,

(3) substance, mixture or process established by this Rulebook, as well as substance or mixture that are the result of process established by this Rulebook;

2) mutagen is:

(1) every substance that meets the criteria for classification into category 1 or 2 of mutagen substances labelled with risk mark R46 pursuant to DSD/DPD Rulebook, or in class and category of hazard Mutagenicity of germinate cells, category 1A or 1B labelled by notification of hazard H340 pursuant to CLP/GHS Rulebook,

(2) mixture containing at least one substance of paragraph point 2 sub-point 1 the individual concentration of which is higher of equal to limit concentration for classification of mixture into the class of hazard mutagen category 1 or 2 pursuant to DSD/DPD Rulebook, or class and category of hazard Mutagenicity of germinate cells, category 1A or 1B pursuant to CLP/GHS Rulebook;

3) limit value of exposure is the average concentration of carcinogen or mutagen in the air at workplace in breathing zone of an employee, under normal microclimate working conditions and with mild physical effort, calculated in a certain period of time, compared to the stated reference period, which is not considered as hazardous for health of an employee, if the employee works at concentration lower or equal to limit value for eight hours a day, expressed in mg/m³ or ml/m³ [ppm]. Limit value of exposure is provided for eight-hour exposure.

Overview of substances, mixtures and processes from paragraph 1 point 1 sub-point 3 of this Rulebook is printed with this Rulebook and constitutes its integral part.

Risk Assessment

Article 4

This Rulebook shall apply to workplaces at which tasks are performed when employees are or may be exposed to risk of carcinogens or mutagens.

For all workplaces in working environment at which there is possibility of exposure of employees to carcinogens or mutagens, the employer shall perform assessment of risk form damage of health of employees in order to establish nature, degree and duration of exposure of employees and measures for elimination or reduction of those risks.

Employer shall perform partial amendment of act on risk assessment in case of change in performing tasks, or occurrence of new hazards and dangers that may influence exposure of employees to carcinogens and mutagens.

Employer shall provide information used for risk assessment to the competent labour inspection at its request.

During risk assessment all other manners of exposure shall be considered, like absorption into and/or through skin.

During the procedure of risk assessment procedure at workplace in working environment, the employer shall particularly consider consequences upon safety and health of employees aged between 18 and 21, employed woman during pregnancy and an employee with reduced working ability who could get in touch with carcinogens or mutagens, and consider options of transferring these employees to other workplaces where they could not get in touch with carcinogens or mutagens.

Article 5

Employer shall replace carcinogens or mutagens at workplace by a substance, mixture or a process which under the terms of use are not hazardous or are less hazardous for safety and health of employees, if technically feasible, depending on the case. If it is not possible, the employer shall reduce use of carcinogen or mutagen at workplace to the minimum extent possible.

Employer shall submit data on performed testing to competent authorities upon their request.

Article 6

When risk assessment of Article 4 paragraph 2 of this Rulebook establishes that there is a risk for safety or health of employees, the employer shall eliminate or prevent exposure of employees.

When it is not technically feasible to replace carcinogen or mutagen with a substance, mixture or a process that under the terms of use are not hazardous or are less hazardous for safety and health of employees, the Employer shall provide that, if technically feasible, carcinogen or mutagen are manufactured and used in a closed system.

If a closed system may not technically be provided, the employer shall reduce the exposure of employees to the technically lowest extent possible, and in any case to value lower than the limit value of exposure stipulated by Appendix 3.

At every use of carcinogen or mutagen, the employer shall provide implementation of preventive measures, particularly the following ones:

- 1) limiting the quantity of carcinogen or mutagen at workplace to the minimum extent possible;
- 2) reducing to minimum the number of employees who are or could be exposed;
- 3) designing appropriate processes of work and technical control in order to avoid, or reduce as much as possible, the release of carcinogen or mutagen at workplace;
- 4) elimination of carcinogen or mutagen at their source through local and general ventilation, whereas all those methods shall correspond and comply with public health and the environment protection requirements;
- 5) implementation of preventive and periodic testing of working environment conditions, particularly for early detection of unpredictably high exposure as a consequence of a hazardous event of technical and technological accident;
- 6) application of appropriate work procedures and methods;
- 7) collective measures of protection and/or in case that exposure may not be avoided by other means, individual measures of protection;
- 8) hygiene measures, particularly regular cleaning of floors, walls and other surfaces;
- 9) informing of employees;
- 10) marking hazardous area with appropriate signs according to regulations on safety and health at work, including "NO SMOKING" sign in areas where employees are exposed or may be exposed to carcinogens or mutagens;
- 11) development of plans for acting in emergency situations that may lead to unpredictably high exposure;
- 12) establishing the manner for safe storage, handling and transport, through use of safe and clearly marked containers;
- 13) establishing the manner for safe collection, storage and disposal of waste by employees, including use of safe and clearly marked containers.

Information for Competent Authority

Article 7

When the employer establishes the existence of safety or health risk for employees from Article 4 paragraph 2 of this Rulebook, the employer shall, upon request of competent labour inspection, provide the following information on:

- 1) operations and/or technological processes performed, including reasons of use of carcinogen or mutagen;
- 2) quantities of substances or mixtures produced or used, containing carcinogens or mutagens;
- 3) Number of employees exposed;
- 4) Preventive measures undertaken;
- 5) Type of devices and equipment for personal protection at work used;
- 6) Nature, degree and duration of exposure;
- 7) Cases of replacement.

Unpredictable Exposure

Article 8

In case of hazardous event or technical and technological accident because of which unpredictably high exposure of employees may occur, the employer shall duly notify the employees.

In order to establish normal status and eliminate causes of unpredictably high exposure, the employer shall:

- 1) allow work in hazardous area only to employees who are necessary for repairs and other essential works;
- 2) provide protective clothes and devices and equipment for protection of respiratory organs to employees that the employees shall use, and exposure may not be permanent and shall be limited to the shortest time required for each employee;

3) prohibit presence in hazardous area to employees who are not protected by appropriate devices and equipment for personal protection at work.

Predictable Exposure

Article 9

For certain tasks for which significant increase of exposure of employees may be predicted and for which technical preventive measures to limit exposure of employees have been applied, upon consultations with employees or their representatives for safety and health at work, the employer shall provide implementation of preventive measures to reduce duration of exposure of employees to the shortest period possible and ensure safety and health of employees when performing those tasks.

The employer shall provide protective clothes and devices and equipment for personal protection of respiratory organs to employees from paragraph 1 of this Article that the employees shall use for as long as the unpredictably high exposure lasts. Such an exposure may not be permanent and it shall be strictly limited to the shortest time required for each employee.

Employer shall undertake appropriate measures to put signs and visibly mark the areas where tasks of paragraph 1 of this Article are performed, or shall prevent access to those areas to unauthorized persons in some other way.

Access to Danger Areas

Article 10

The employer shall undertake appropriate measures to ensure that access to area in which tasks for which the risk for safety or health of employees is established based on risk assessment from Article 4 paragraph 2, is granted only to the employees requiring access to that area in the course of performing of their own jobs.

Hygiene and Individual Measures of Safety and Health at Work

Article 11

Employer shall enable work during which measures of safety and health at work are implemented to every employee who is or may be exposed to carcinogens or mutagens, and shall particularly ensure that:

- 1) employees do not consume food, liquids or smoke in working area in which there is a risk of contamination by carcinogens or mutagens;
- 2) appropriate devices and equipment for personal protection at work are provided for employees;
- 3) devices and equipment for personal protection at work are kept separately from personal clothes and items of employees;
- 4) appropriate premises with showers and washbasins are provided for employees;
- 5) devices and equipment for personal protection at work are disposed of in a designated place and kept in satisfactory hygienic status by regular cleaning after each use;
- 6) if damaged, devices and equipment for personal protection at work are repaired and replaced prior to use.

Employer shall ensure that implementation of measures from paragraph 1 of this Article does not cause financial obligations for employees.

Training of Employees

Article 12

Employer shall provide the information pertaining to safety and health at work to employees or their representatives for safety and health at work, especially on measures undertaken in order to

achieve safe and healthy working conditions during exposure to carcinogens or mutagens, through directions or instructions regarding:

- 1) risks of damage of health of employees including synergetic effect of smoking;
- 2) importance of preventive measures for prevention of exposure;
- 3) hygienic requirements;
- 4) importance of regular use and maintenance of devices and equipment for personal protection at work;
- 5) measures undertaken in case of hazardous event and technical and technological accident in order to prevent them.

The employer shall enable training of employees for safe and healthy work that:

- 1) adjusts to changes – in order to include new hazards or dangers, or changes in the risk level;
- 2) is periodically repeated, as per needed.

The employer shall inform employees on vessels and pipelines connected to them, containing carcinogens or mutagens, as well as ensure that vessels, pipelines and packaging are clearly and comprehensibly marked and that clearly visible warning signs are placed on them.

Informing of Employees

Article 13

Employer shall implement preventive measures, ensuring that:

1) employees and/or representatives of employees for safety and health at work may verify implementation of this Rulebook or participate in its implementation, particularly regarding:

(1) significance of selection, wearing and use of devices and equipment for personal equipment for protection at work for safety and health at work, without prejudice to responsibility or employer to establish efficiency of devices and equipment for personal equipment for protection at work,

(2) measures provided by employer regarding Article 9 paragraph 1 or this Rulebook, without prejudice to responsibility of employer to ensure implementation of those measures;

2) employees and/or representatives of employees for safety and health at work are informed in the shortest period of time that there has been unpredictably high exposure, including the one of Article 9 of this Rulebook, reasons for that exposure and measures undertaken or to be undertaken in order to remedy the situation;

3) updated list of employees performing tasks for which the results of risk assessment of Article 4 paragraph 2 identify risk for safety or health of employees is kept, stating, if data are available, the level of exposure;

4) occupational medicine department engaged for protection of health of employees has access to the list from the previous point;

5) every employee has access to information from the list pertaining to himself/herself personally;

6) employees and/or representatives of employees for safety and health at work have access to all the information not including personal data.

Cooperation of Employer and Employees

Article 14

Employer and employees, or their representatives for safety and health at work, shall cooperate on all the issues pertaining to exposure to carcinogens or mutagens.

Health Status Monitoring

Article 15

Employer shall ensure monitoring of health status of employees working at workplaces from Article 4 paragraph 1 of this Rulebook, through previous and periodic medical examinations of

employees at workplaces with increased risk and targeted medical examinations, according to regulations in the area of safety and health at work and health protection.

The employer shall send employee working at workplace from Article 4 paragraph 1 of this Rulebook, and which is not identified as workplace with increased risk by the act on risk assessment, to targeted medical examinations prior to beginning of work and for as long as the employee is or may be exposed to carcinogen or mutagen. Targeted medical examinations, from paragraph 1 of this Article, shall be carried out in a manner, according to procedure and within deadlines as previous and periodic medical examinations of employees at workplaces with increased risk.

If changes in health status of an employee are detected, and those changes may be the result of exposure to carcinogens or mutagens, department of occupational medicine shall propose monitoring health status of other employees who were exposed in a similar manner. In that case, partial amendment of act on risk assessment shall be performed, according to Article 4 of this Rulebook.

Department of occupational medicine monitoring the health status of employees shall propose preventive measures for each individual employee.

Employees are entitled to access to their own personal health status data.

Department of occupational medicine shall provide all the information and advice regarding the manner of health status monitoring upon completion of exposure to employees.

All cases of cancer as a consequence of exposure to exposure to carcinogens or mutagens at workplace shall be reported to the competent authority, according to special regulations.

Measures for monitoring health status (Appendix 2) are printed with this Rulebook and constitute its integral part.

Limit Values

Article 16

Limit values of exposure at workplace (Appendix 3) are printed with this Rulebook and constitute its integral part.

Final Provision

Article 17

This Rulebook shall enter into force on the eight day upon publishing in “Official Gazette of the Republic of Serbia” and shall apply as of January 1, 2013.

Number 110-00-00001/2011-01

In Belgrade, on December 8, 2011

MINISTER

Rasim Ljajić

Overview of Substances, Mixtures and Processes

Some of the usual substances, mixtures and processes are:

1. Manufacturing of auramine
2. Work involving exposure to polycyclic aromatic carbohydrates present in soot, tar or coal tar.
3. Work including exposure to dust, smoke and aerosols that arise from annealing and electric processing of copper-nickel scale.
4. Manufacturing of isopropyl-alcohol in presence of strong acids.
5. Work involving exposure to hard wood dust.

Measures of Health Status Monitoring

1. Occupational medicine department monitoring the health status of employees exposed to carcinogens or mutagens shall be introduced to terms or manner of exposure of every employee.
2. Monitoring of health status of employees shall be performed in accordance with principles and practice of occupational medicine and shall include at least the following measures:
 - 1) Keeping records on health and professional anamnesis of an employee;
 - 2) Personal interview and examination of an employee;
 - 3) Where appropriate, biological monitoring, as well as detection of early and reversible consequences.

Further examinations for each employee whose health status is monitored may be decided on according to contemporary achievements available to occupational medicine.

Limit Values of Exposure at Workplace

Name of substance	EINECS (1)	CAS (2)	Limit values		Comment
			mg/m ³ (3)	ppm (4)	
Benzene	200-753-7	71-43-2	3.25 (5)	1 (5)	Skin (6)
Vinylchloride monomer	200-831	75-01-4	7.77 (5)	3 (5)	-
Hard wood dust	-	-	5.0 (5) (7)	-	-

Marks in Appendix 3 shall have the following meaning:

- (1) EINECS – identification number from European Inventory of Existing Commercial Chemical Substances
- (2) CAS number – identification number from Chemical Abstract Service
- (3) mg/m³ = milligrams per cubic meter of air at 20°C temperature and 101.3 kPa pressure (760 mm Hg).
- (4) ppm = parts at million of air volume (ml/m³).
- (5) Measured or calculated in relation to reference period of eight hours.
- (6) Possible significant contribution to total body load through skin exposure.
- (7) Part that is inhaled – if the dust of hard wood is mixed with other types of wood dust, limit value shall apply to all types of wood dust existing in that mixture.