

EUにおける母性保護（危険有害業務）について

- 根拠・・ 1992年の指令第85号（92/85/EEC）
妊娠中の労働者及び出産直後又は授乳中の労働者の職場における安全衛生の改善を促進するための対策導入に関する指令
- 保護のしくみ（詳細は、別添1参照）
 - ① 事業主は妊産婦等にリスクがあると考えられる業務についてリスク評価を行い、
 - ② リスクが明らかになった場合は、リスク回避の措置（※）をとる
※ 労働環境の改善、労働時間の調整、配置転換、休業
 - ③ 一定のリスクが明らかになった場合は、妊婦及び授乳中の労働者は当該業務に就くことを強制されない
- リスク評価に関するガイドライン
 - ① リスク評価の基準とするため、欧州委員会は妊産婦等に有害と考えられる化学物質等の評価等についてのガイドラインを制定、加盟国はこれを広く労使に周知することとされている。
 - ② ガイドラインでは、妊産婦等に有害と考えられる要因（化学的要因、物理的要因、生物的要因、労働環境等）と対応するリスク回避のための措置を例示
※ ガイドラインでは、以下のように表示されている（詳細は、別添2参照）

物質名	どのようなリスク（障害・危険）があるのか。	どのようにリスクに対処するのか。予防手段の例
水銀及びその化合物	<p>有機水銀化合物は胎児に有害な影響を与える可能性がある。</p> <p>動物実験と人についての報告によれば、妊娠期間中にこれらの水銀化合物にばく露すると、胎児の成長が遅れたり、神経組織が破壊されたり、母親が死亡したりする、ということが示されている。</p> <p>有機水銀は血液から母乳へと運ばれる。女性が、妊娠前や妊娠中に、高度に有機水銀にばく露すると、胎児を危険にさらすことになりうる。</p>	<p>ばく露を防止することが第一の優先事項とされなければならない。</p> <p>ばく露を防止することができない場合には、良い作業計画及び管理を伴う技術的手段と個人用保護具（PPE）の使用との組み合わせが、ばく露の制御方法となりうる。</p> <p>PPEは、他のすべての方法が適用できない場合にのみ、ばく露を制御する措置として用いられるべきである。PPEは、また、他の方法と組み合わせて二次的な防護対策として使用してもよい。</p>

- ③ 事業主は、リスク評価に当たっては、既存のばく露限界値（※）を考慮するとともに、妊産婦等のリスクに特別の考慮をしなければならない
※ 通常は妊産婦又は胎児にリスクを与えないレベルに設定されている。場合によっては、妊婦にはより低いレベルが設定されている場合もある。

(参考) REACHシステム

- EUにおいては、化学物質の管理について、登録、評価、認可等から構成されるREACH (Registration, Evaluation and Authorization of Chemicals) システムの導入が提案され、その導入に向けた作業が進められている。その概要は次のとおり。

1 登録義務

EU内で、年間1トン以上の物質を製造する事業者等は、欧州化学品庁に、有害性情報の概要等の登録書を提出しなければならない。

2 評価

EU各国の規制当局は、登録された化学物質に関して登録者が提案する試験実施計画を評価し、必要に応じて当該物質の登録者等に対して試験の実施を要求する。

3 認可

発ガン性、変異原性、生殖毒性のカテゴリーが1及び2の物質、難分解性・生体蓄積性及び毒性物質等の物質については、使用前に認可されていなければ、また、認可の条件内でなければ使用してはならない。

4 分類

発ガン性、変異原性、生殖毒性のカテゴリーについて。

(参考：指令67/548/EECによる発ガン性の分類の例
・・・変異原性、生殖毒性についても同じ)

カテゴリー1：人に対して発ガン性があることが知られている物質
(ある物質の人へのばく露とがんの発生の因果関係を確立するに十分は証拠を有する。主に疫学的なデータによって判断される。)

カテゴリー2：人に対して発ガン性があるようにみなされるべき物質
(適切な長期の動物での調査、その他の関連情報により、ある物質の人へのばく露ががんを発生させるおそれがあるという強い推定を与えるための十分な証拠がある。)

カテゴリー3：発ガン性作用を及ぼす可能性があるため、人に対して懸念を引き起こすが、利用可能な情報では、これについて評価が適切に行えない物質
(適切な動物での調査から、有る程度の証拠はあるが、カテゴリー2に含めるには不十分である。)

II

(Acts whose publication is not obligatory)

COUNCIL

COUNCIL DIRECTIVE 92/85/EEC

of 19 October 1992

on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding (tenth individual Directive within the meaning of Article 16 (1) of Directive 89/391/EEC)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 118a thereof,

Having regard to the proposal from the Commission, drawn up after consultation with the Advisory Committee on Safety, Hygiene and Health Protection at work ⁽¹⁾,

In cooperation with the European Parliament ⁽²⁾,

Having regard to the opinion of the Economic and Social Committee ⁽³⁾,

Whereas Article 118a of the Treaty provides that the Council shall adopt, by means of directives, minimum requirements for encouraging improvements, especially in the working environment, to protect the safety and health of workers;

Whereas this Directive does not justify any reduction in levels of protection already achieved in individual Member States, the Member States being committed, under the Treaty, to encouraging improvements in conditions in this area and to harmonizing conditions while maintaining the improvements made;

Whereas, under the terms of Article 118a of the Treaty, the said directives are to avoid imposing administrative, financial and legal constraints in a way which would hold back the creation and development of small and medium-sized undertakings;

Whereas, pursuant to Decision 74/325/EEC ⁽⁴⁾, as last amended by the 1985 Act of Accession, the Advisory Committee on Safety, Hygiene and Health protection at Work is consulted by the Commission on the drafting of proposals in this field;

Whereas the Community Charter of the fundamental social rights of workers, adopted at the Strasbourg European Council on 9 December 1989 by the Heads of State or Government of 11 Member States, lays down, in paragraph 19 in particular, that:

'Every worker must enjoy satisfactory health and safety conditions in his working environment. Appropriate measures must be taken in order to achieve further harmonization of conditions in this area while maintaining the improvements made';

Whereas the Commission, in its action programme for the implementation of the Community Charter of the fundamental social rights of workers, has included among its aims the adoption by the Council of a Directive on the protection of pregnant women at work;

Whereas Article 15 of Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work ⁽⁵⁾ provides that particularly sensitive risk groups must be protected against the dangers which specifically affect them;

Whereas pregnant workers, workers who have recently given birth or who are breastfeeding must be considered a specific

⁽¹⁾ OJ No C 281, 9. 11. 190, p. 3; and OJ No C 25, 1. 2. 1991, p. 9.

⁽²⁾ OJ No C 19, 28. 1. 1991, p. 177; and OJ No C 150, 15. 6. 1992, p. 99.

⁽³⁾ OJ No C 41, 18. 2. 1991, p. 29.

⁽⁴⁾ OJ No L 185, 9. 7. 1974, p. 15.

⁽⁵⁾ OJ No L 183, 29. 6. 1989, p. 1.

risk group in many respects, and measures must be taken with regard to their safety and health;

Whereas the protection of the safety and health of pregnant workers, workers who have recently given birth or workers who are breastfeeding should not treat women on the labour market unfavourably nor work to the detriment of directives concerning equal treatment for men and women;

Whereas some types of activities may pose a specific risk, for pregnant workers, workers who have recently given birth or workers who are breastfeeding, of exposure to dangerous agents, processes or working conditions; whereas such risks must therefore be assessed and the result of such assessment communicated to female workers and/or their representatives;

Whereas, further, should the result of this assessment reveal the existence of a risk to the safety or health of the female worker, provision must be made for such worker to be protected;

Whereas pregnant workers and workers who are breastfeeding must not engage in activities which have been assessed as revealing a risk of exposure, jeopardizing safety and health, to certain particularly dangerous agents or working conditions;

Whereas provision should be made for pregnant workers, workers who have recently given birth or workers who are breastfeeding not to be required to work at night where such provision is necessary from the point of view of their safety and health;

Whereas the vulnerability of pregnant workers, workers who have recently given birth or who are breastfeeding makes it necessary for them to be granted the right to maternity leave of at least 14 continuous weeks, allocated before and/or after confinement, and renders necessary the compulsory nature of maternity leave of at least two weeks, allocated before and/or after confinement;

Whereas the risk of dismissal for reasons associated with their condition may have harmful effects on the physical and mental state of pregnant workers, workers who have recently given birth or who are breastfeeding; whereas provision should be made for such dismissal to be prohibited;

Whereas measures for the organization of work concerning the protection of the health of pregnant workers, workers who have recently given birth or workers who are breastfeeding would serve no purpose unless accompanied by the maintenance of rights linked to the employment contract, including maintenance of payment and/or entitlement to an adequate allowance;

Whereas, moreover, provision concerning maternity leave would also serve no purpose unless accompanied by the

maintenance of rights linked to the employment contract and or entitlement to an adequate allowance;

Whereas the concept of an adequate allowance in the case of maternity leave must be regarded as a technical point of reference with a view to fixing the minimum level of protection and should in no circumstances be interpreted as suggesting an analogy between pregnancy and illness,

HAS ADOPTED THIS DIRECTIVE

SECTION I

PURPOSE AND DEFINITIONS

Article 1

Purpose

1. The purpose of this Directive, which is the tenth individual Directive within the meaning of Article 16 (1) of Directive 89/391/EEC, is to implement measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or who are breastfeeding.
2. The provisions of Directive 89/391/EEC, except for Article 2 (2) thereof, shall apply in full to the whole area covered by paragraph 1, without prejudice to any more stringent and/or specific provisions contained in this Directive.
3. This Directive may not have the effect of reducing the level of protection afforded to pregnant workers, workers who have recently given birth or who are breastfeeding as compared with the situation which exists in each Member State on the date on which this Directive is adopted.

Article 2

Definitions

For the purposes of this Directive:

- (a) *pregnant worker* shall mean a pregnant worker who informs her employer of her condition, in accordance with national legislation and/or national practice;
- (b) *worker who has recently given birth* shall mean a worker who has recently given birth within the meaning of national legislation and/or national practice and who informs her employer of her condition, in accordance with that legislation and/or practice;
- (c) *worker who is breastfeeding* shall mean a worker who is breastfeeding within the meaning of national legislation and/or national practice and who informs her employer of her condition, in accordance with that legislation and/or practice.

SECTION II

Article 5

GENERAL PROVISIONS

Action further to the results of the assessment

Article 3

Guidelines

1. In consultation with the Member States and assisted by the Advisory Committee on Safety, Hygiene and Health Protection at Work, the Commission shall draw up guidelines on the assessment of the chemical, physical and biological agents and industrial processes considered hazardous for the safety or health of workers within the meaning of Article 2.

The guidelines referred to in the first subparagraph shall also cover movements and postures, mental and physical fatigue and other types of physical and mental stress connected with the work done by workers within the meaning of Article 2.

2. The purpose of the guidelines referred to in paragraph 1 is to serve as a basis for the assessment referred to in Article 4 (1).

To this end, Member States shall bring these guidelines to the attention of all employers and all female workers and/or their representatives in the respective Member State.

Article 4

Assessment and information

1. For all activities liable to involve a specific risk of exposure to the agents, processes or working conditions of which a non-exhaustive list is given in Annex I, the employer shall assess the nature, degree and duration of exposure, in the undertaking and/or establishment concerned, of workers within the meaning of Article 2, either directly or by way of the protective and preventive services referred to in Article 7 of Directive 89/391/EEC, in order to:

- assess any risks to the safety or health and any possible effect on the pregnancies or breastfeeding of workers within the meaning of Article 2,
- decide what measures should be taken.

2. Without prejudice to Article 10 of Directive 89/391/EEC, workers within the meaning of Article 2 and workers likely to be in one of the situations referred to in Article 2 in the undertaking and/or establishment concerned and/or their representatives shall be informed of the results of the assessment referred to in paragraph 1 and (of) all measures to be taken concerning health and safety at work.

1. Without prejudice to Article 6 of Directive 89/391/EEC, if the results of the assessment referred to in Article 4 (1) reveal a risk to the safety or health or an effect on the pregnancy or breastfeeding of a worker within the meaning of Article 2, the employer shall take the necessary measures to ensure that, by temporarily adjusting the working conditions and/or the working hours of the worker concerned, the exposure of that worker to such risks is avoided.

2. If the adjustment of her working conditions and/or working hours is not technically and/or objectively feasible, or cannot reasonably be required on duly substantiated grounds, the employer shall take the necessary measures to move the worker concerned to another job.

3. If moving her to another job is not technically and/or objectively feasible or cannot reasonably be required on duly substantiated grounds, the worker concerned shall be granted leave in accordance with national legislation and/or national practice for the whole of the period necessary to protect her safety or health.

4. The provisions of this Article shall apply *mutatis mutandis* to the case where a worker pursuing an activity which is forbidden pursuant to Article 6 becomes pregnant or starts breastfeeding and informs her employer thereof.

Article 6

Cases in which exposure is prohibited

In addition to the general provisions concerning the protection of workers, in particular those relating to the limit values for occupational exposure:

1. pregnant workers within the meaning of Article 2 (a) may under no circumstances be obliged to perform duties for which the assessment has revealed a risk of exposure, which would jeopardize safety or health, to the agents and working conditions listed in Annex II, Section A;
2. workers who are breastfeeding, within the meaning of Article 2 (c), may under no circumstances be obliged to perform duties for which the assessment has revealed a risk of exposure, which would jeopardize safety or health, to the agents and working conditions listed in Annex II, Section B.

Article 7

Night work

1. Member States shall take the necessary measures to ensure that workers referred to in Article 2 are not obliged to

perform night work during their pregnancy and for a period following childbirth which shall be determined by the national authority competent for safety and health, subject to submission, in accordance with the procedures laid down by the Member States, of a medical certificate stating that this is necessary for the safety or health of the worker concerned.

2. The measures referred to in paragraph 1 must entail the possibility, in accordance with national legislation and/or national practice, of:

- (a) transfer to daytime work; or
- (b) leave from work or extension of maternity leave where such a transfer is not technically and/or objectively feasible or cannot reasonably be required on duly substantiated grounds.

Article 8

Maternity leave

1. Member States shall take the necessary measures to ensure that workers within the meaning of Article 2 are entitled to a continuous period of maternity leave of at least 14 weeks allocated before and/or after confinement in accordance with national legislation and/or practice.

2. The maternity leave stipulated in paragraph 1 must include compulsory maternity leave of at least two weeks allocated before and/or after confinement in accordance with national legislation and/or practice.

Article 9

Time off for ante-natal examinations

Member States shall take the necessary measures to ensure that pregnant workers within the meaning of Article 2 (a) are entitled to, in accordance with national legislation and/or practice, time off, without loss of pay, in order to attend ante-natal examinations, if such examinations have to take place during working hours.

Article 10

Prohibition of dismissal

In order to guarantee workers, within the meaning of Article 2, the exercise of their health and safety protection rights as recognized under this Article, it shall be provided that:

1. Member States shall take the necessary measures to prohibit the dismissal of workers, within the meaning of Article 2, during the period from the beginning of their pregnancy to the end of the maternity leave referred to in Article 8 (1), save in exceptional cases not connected with their condition which are permitted under national legislation and/or practice and, where applicable, provided that the competent authority has given its consent;
2. if a worker, within the meaning of Article 2, is dismissed during the period referred to in point 1, the employer must cite duly substantiated grounds for her dismissal in writing;
3. Member States shall take the necessary measures to protect workers, within the meaning of Article 2, from consequences of dismissal which is unlawful by virtue of point 1.

Article 11

Employment rights

In order to guarantee workers within the meaning of Article 2 the exercise of their health and safety protection rights as recognized in this Article, it shall be provided that:

1. in the cases referred to in Articles 5, 6 and 7, the employment rights relating to the employment contract, including the maintenance of a payment to, and/or entitlement to an adequate allowance for, workers within the meaning of Article 2, must be ensured in accordance with national legislation and/or national practice;
2. in the case referred to in Article 8, the following must be ensured:
 - (a) the rights connected with the employment contract of workers within the meaning of Article 2, other than those referred to in point (b) below;
 - (b) maintenance of a payment to, and/or entitlement to an adequate allowance for, workers within the meaning of Article 2;
3. the allowance referred to in point 2 (b) shall be deemed adequate if it guarantees income at least equivalent to that which the worker concerned would receive in the event of a break in her activities on grounds connected with her state of health, subject to any ceiling laid down under national legislation;
4. Member States may make entitlement to pay or the allowance referred to in points 1 and 2 (b) conditional upon the worker concerned fulfilling the conditions of eligibility for such benefits laid down under national legislation.

These conditions may under no circumstances provide for periods of previous employment in excess of 12 months immediately prior to the presumed date of confinement.

Article 12

Defence of rights

Member States shall introduce into their national legal systems such measures as are necessary to enable all workers who should themselves wronged by failure to comply with the obligations arising from this Directive to pursue their claims by judicial process (and/or, in accordance with national laws and/or practices) by recourse to other competent authorities.

Article 13

Amendments to the Annexes

1. Strictly technical adjustments to Annex I as a result of technical progress, changes in international regulations or specifications and new findings in the area covered by this Directive shall be adopted in accordance with the procedure laid down in Article 17 of Directive 89/391/EEC.

2. Annex II may be amended only in accordance with the procedure laid down in Article 118a of the Treaty.

Article 14

Final provisions

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive not later than two years after the adoption thereof or ensure, at the latest two years after adoption of this Directive, that the two sides of industry introduce the requisite provisions by means of collective agreements, with Member States being required to make all the necessary provisions to enable them at all times to guarantee the results laid down by this Directive. They shall forthwith inform the Commission thereof.

2. When Member States adopt the measures referred to in paragraph 1, they shall contain a reference of this Directive

or shall be accompanied by such reference on the occasion of their official publication. The methods of making such a reference shall be laid down by the Member States.

3. Member States shall communicate to the Commission the texts of the essential provisions of national law which they have already adopted or adopt in the field governed by this Directive.

4. Member States shall report to the Commission every five years on the practical implementation of the provisions of this Directive, indicating the points of view of the two sides of industry.

However, Member States shall report for the first time to the Commission on the practical implementation of the provisions of this Directive, indicating the points of view of the two sides of industry, four years after its adoption.

The Commission shall inform the European Parliament, the Council, the Economic and Social Committee and the Advisory Committee on Safety, Hygiene and Health Protection at Work.

5. The Commission shall periodically submit to the European Parliament, the Council and the Economic and Social Committee a report on the implementation of this Directive, taking into account paragraphs 1, 2 and 3.

6. The Council will re-examine this Directive, on the basis of an assessment carried out on the basis of the reports referred to in the second subparagraph of paragraph 4 and, should the need arise, of a proposal, to be submitted by the Commission at the latest five years after adoption of the Directive.

Article 15

This Directive is addressed to the Member States.

Done at Luxembourg, 19 October 1992.

For the Council
The President
D. CURRY

ANNEX I

NON-EXHAUSTIVE LIST OF AGENTS, PROCESSES AND WORKING CONDITIONS

referred to in Article 4 (1)

A. Agents

1. *Physical agents* where these are regarded as agents causing foetal lesions and/or likely to disrupt placental attachment, and in particular:

- (a) shocks, vibration or movement;
- (b) handling of loads entailing risks, particularly of a dorsolumbar nature;
- (c) noise;
- (d) ionizing radiation (*);
- (e) non-ionizing radiation;
- (f) extremes of cold or heat;
- (g) movements and postures, travelling — either inside or outside the establishment — mental and physical fatigue and other physical burdens connected with the activity of the worker within the meaning of Article 2 of the Directive.

2. *Biological agents*

Biological agents of risk groups 2, 3 and 3 within the meaning of Article 2 (d) numbers 2, 3 and 4 of Directive 90/679/EEC ⁽¹⁾, in so far as it is known that these agents or the therapeutic measures necessitated by such agents endanger the health of pregnant women and the unborn child and in so far as they do not yet appear in Annex II.

3. *Chemical agents*

The following chemical agents in so far as it is known that they endanger the health of pregnant women and the unborn child and in so far as they do not yet appear in Annex II:

- (a) substances labelled R 40, R 45, R 46, and R 47 under Directive 67/548/EEC ⁽²⁾ in so far as they do not yet appear in Annex II;
- (b) chemical agents in Annex I to Directive 90/394/EEC ⁽³⁾;
- (c) mercury and mercury derivatives;
- (d) antimetabolic drugs;
- (e) carbon monoxide;
- (f) chemical agents of known and dangerous percutaneous absorption.

B. Processes

Industrial processes listed in Annex I to Directive 90/394/EEC.

C. Working conditions

Underground mining work.

(*) See Directive 80/836/Euratom (OJ No L 246, 17. 9. 1980, p. 1).

(1) OJ No L 374, 31. 12. 1990, p. 1.

(2) OJ No L 196, 16. 8. 1967, p. 1. Directive as last amended by Directive 90/517/EEC (OJ No L 287, 19. 10. 1990, p. 37).

(3) OJ No L 196, 26. 7. 1990, p. 1.

ANNEX II

NON-EXHAUSTIVE LIST OF AGENTS AND WORKING CONDITIONS

referred to in Article 6

A. Pregnant workers within the meaning of Article 2 (a)

1. Agents

(a) Physical agents

Work in hyperbaric atmosphere, e.g. pressurized enclosures and underwater diving.

(b) Biological agents

The following biological agents:

- toxoplasma,
- rubella virus,

unless the pregnant workers are proved to be adequately protected against such agents by immunization.

(c) Chemical agents

Lead and lead derivatives in so far as these agents are capable of being absorbed by the human organism.

2. Working conditions

Underground mining work.

B. Workers who are breastfeeding within the meaning of Article 2 (c)

1. Agents

(a) Chemical agents

Lead and lead derivatives in so far as these agents are capable of being absorbed by the human organism.

2. Working conditions

Underground mining work.

Statement of the Council and the Commission concerning Article 11 (3) of Directive 92/ 85/EEC, entered in the minutes of the 1608th meeting of the Council (Luxembourg, 19 October 1992)

THE COUNCIL AND THE COMMISSION stated that:

'In determining the level of the allowances referred to in Article 11 (2)(b) and (3), reference shall be made, for purely technical reasons, to the allowance which a worker would receive in the event of a break in her activities on grounds connected with her state of health. Such a reference is not intended in any way to imply that pregnancy and childbirth be equated with sickness. The national social security legislation of all Member States provides for an allowance to be paid during an absence from work due to sickness. The link with such allowance in the chosen formulation is simply intended to serve as a concrete, fixed reference amount in all Member States for the determination of the minimum amount of maternity allowance payable. In so far as allowances are paid in individual Member States which exceed those provided for in the Directive, such allowances are, of course, retained. This is clear from Article 1 (3) of the Directive.'

CHEMICAL AGENTS – Chemical agents may enter the human body through different pathways: inhalation, ingestion, percutaneous penetration, dermal absorption. The following chemical agents in so far as it is known that they endanger the health of pregnant women and the unborn child:			
List of agents/working conditions	What is the risk?	How to deal with the risk Examples of preventive measures*	European legislation other than Directive 92/85/EEC
Substances labelled R40, R45, R46, R49, R61, R63 and R64	<p>The substances are listed in Annex 1 of Directive 67/548/EEC and are labelled with the risk phrases:</p> <p>R40: possible risk of irreversible effects;</p> <p>R45: may cause cancer;</p> <p>R46: may cause heritable genetic damage;</p> <p>R49: may cause cancer by inhalation;</p> <p>R61: may cause harm to the unborn child;</p> <p>R63: possible risk of harm to the unborn child;</p> <p>R64: may cause harm to breastfed babies.</p> <p>The actual risk to health of these substances can only be determined following a risk assessment of a particular substance at the place of work - i.e. although the substances listed may have the potential to endanger health or safety, there may be no risk in practice, for example if exposure is below a level which might cause harm.</p>	<p>For work with hazardous substances, which include chemicals which may cause heritable genetic damage, employers are required to assess the health risks to workers arising from such work, and where appropriate prevent or control the risks. In carrying out assessments, employers should have regard for women who are pregnant, or who have recently given birth.</p> <p>Prevention of exposure must be the first priority. Where it is not appropriate to prevent the risk, control of exposure may be by a combination of technical measures, along with good work planning and housekeeping, and the use of Personal Protective Equipment (PPE). PPE should only be used for control purposes if all other methods have failed. It may also be used as secondary protection in combination with other methods.</p> <p>Substitution of harmful agents should be made, if possible.</p>	<p>Council Directive 98/24/EC (risks related to chemical agents at work)</p> <p>Council Directive 90/394/EEC (carcinogens at work)</p> <p>Council Directive 67/548/EEC (classification, packaging and labelling of dangerous substances) and its amendments</p> <p>Directive 91/155/EEC as amended by Directive 93/112/EEC establishing a system of safety data sheets.</p>

* The examples in this column are for guidance only. Other preventive measures exist for all the risks listed. It is up to individual employers to select the measures most appropriate to their situation, while complying with applicable Community and national legislation.

25

	Industries which use chemicals are referred to the "Guidance on the health protection of pregnant women at work" issued by CEFIC ¹ . It gives particular attention to chemical hazards and guidance on risk assessment.		
Preparations labelled on the basis of Directive 83/379/EEC or 1999/45/EC	A preparation containing more than specified concentrations of a substance bearing one of the risk phrases R40, R45, R46, R49, R61, R63 and R64 would be expected to present similar hazards. The prudent employer would apply the assessment principles appropriate for substances to similarly labelled preparation, should these occur on the workplace.	Hazardous preparations should be assessed and risk management action undertaken in the same way as for similar hazardous substances.	Directive 88/379/EEC or 1999/45/EC (classification, packaging and labelling of dangerous preparation) as amended or adapted.
Mercury and mercury derivatives	<p>Organic mercury compounds could have adverse effects on the unborn child. Animal studies and human observations have demonstrated that exposure to these forms of mercury during pregnancy can slow the growth of the unborn baby, disrupt the nervous system, and cause the mother to be poisoned.</p> <p>Organic mercury is transferred from blood to milk. That may pose a risk to offspring, if a woman is highly exposed before and during pregnancy.</p>	Prevention of exposure must be the first priority. Where it is not appropriate to prevent the risk, control of exposure may be by a combination of technical measures, along with good work planning and housekeeping, and the use of Personal Protective Equipment (PPE). PPE should only be used for control purposes if all other methods have failed. It may also be used as secondary protection in combination with other methods.	Council Directive 80/1107/EEC (chemical, physical and biological agents at work) which will be repealed upon transposal by the Member States of Directive 98/24/EC (before 5 May 2001).

¹ Available from CEFIC (European Chemical Industry Council).

Antimitotic (cytotoxic) drugs	<p>In the long term these drugs cause damage to genetic information in sperm and eggs. Some can cause cancer. Absorption is by inhalation or through the skin.</p> <p>Assessment of the risk should look particularly at preparation of the drug for use (pharmacists, nurses), administration of the drug and disposal of waste (chemical and human).</p>	<p>There is no known threshold limit and exposure must be avoided or reduced.</p> <p>Those trying to conceive a child or who are pregnant or breastfeeding should be fully informed of the reproductive hazard.</p> <p>When preparing the drug solutions, exposure should be minimised by the use of protective garments (gloves, gowns and mask), equipment (flow hood), and good working practices. A pregnant worker preparing antineoplastic drug solutions should be transferred to another job.</p>	Council Directive 90/394/EEC (carcinogens at work)
Chemical agents of known and dangerous percutaneous absorption (i.e. that may be absorbed through the skin). This includes some pesticides.	<p>Some chemical agents can also penetrate intact skin and become absorbed into the body, causing harmful effects. These substances are specifically marked in the lists contained in the relevant Directives. As with all substances, the risks will depend on the way the substance is being used as well as on its hazardous properties. Absorption through the skin can result from localised contamination, for example from a splash on the skin or clothing, or in certain cases, from exposure to high atmospheric concentrations of vapour.</p> <p>In the case of agricultural workers, the risk assessment should consider whether there is a residual risk of contamination from e.g. pesticides used at an earlier stage.</p>	<p>Prevention of exposure must be the first priority.</p> <p>Special precautions should be taken to prevent skin contact. Where possible, technical measures to control exposure should be used in preference to personal protective equipment, such as gloves, overalls or face shields. For example, enclose the process or redesign it so that vapourisation is reduced. Where an employee is obliged to use personal protective equipment (either alone or in combination with technical measures), its suitability should be ensured.</p>	Commission Directives 91/322/EEC and 96/94/EC (indicative limit values for chemical agents at work)

Carbon monoxide	<p>Carbon monoxide is produced by using petrol, diesel and liquefied petroleum gas (LPG) as a source of power in engines and in domestic appliances. Risks arise when engines or appliances are operated in enclosed areas.</p> <p>Pregnant women may have heightened susceptibility to the effects of exposure to carbon monoxide.</p> <p>Carbon monoxide readily crosses the placenta and can result in the unborn child being starved of oxygen. Data on the effects of exposure to carbon monoxide on pregnant women are limited, but there is evidence of adverse effects on the unborn child. Both the level and duration of maternal exposure are important factors in the effect on the unborn child.</p> <p>There is no indication that breastfed babies suffer adverse effects from their mother's exposure to carbon monoxide, nor that the mother is significantly more sensitive to carbon monoxide after giving birth.</p> <p>Given the extreme risk of exposure to high levels of CO, risk assessment and prevention of high exposure are identical for all workers.</p> <p>Risk assessment may be complicated by active or passive smoking and/or ambient air pollution. If those sources lead to a higher COHb than occupational exposure would, the level of risk is determined by those outside sources, as the effect on COHb is not cumulative.</p> <p>However, careful documentation of such "outside" sources may be required to avoid liability and litigation</p>	<p>The best preventive measure is to eliminate the hazard by changing processes or equipment. Where prevention is not appropriate, technical measures should be considered, in combination with good working practices and personal protective equipment.</p> <p>Chronic exposure of female workers should be avoided. Even occasional exposure to CO could potentially be harmful.</p> <p>Pregnant workers should be informed about the dangers of exposure to carbon monoxide during smoking.</p>	
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<p>Lead and lead derivatives - in so far as these agents are capable of being absorbed by the human organism</p>	<p>Historically, exposure of pregnant women to lead is associated with abortions and miscarriages, but there is no indication that this is still relevant at current accepted standards for exposure. There are strong indications that exposure to lead, both intra-uterine and post-partum, leads to developmental problems, especially of the nervous system and the blood-forming organs. Women, new-born and young children are more sensitive to lead than male adults.</p> <p>Lead is transferred from blood to milk. This may pose a risk to offspring if a woman is highly exposed before and during pregnancy.</p> <p>Indications of safe levels Exposure to lead cannot safely be measured in terms of airborne exposure levels, because of the different uptake routes. Biological monitoring of blood lead levels (PbB) and biological effects monitoring (e.g. tests for zinc proto porphyrin and levels of amino laevulinic acid in blood or urine) are the best exposure indicators.</p> <p>Risk assessment A risk of exposure of pregnant and breastfeeding women to lead is specifically prohibited under Article 6 of the Directive if the exposure might jeopardise safety or health. The risk assessment should be based upon both the individual's and the work group's historical record of blood lead levels or similar parameters, not on ambient air monitoring. Where these are within the range of unexposed people, it could be concluded that the health is not in jeopardy. However, PbB levels and other biological indicators of exposure may change over time without apparent relation to (airborne) exposure. There is therefore a possibility that a change in the monitoring indicator might occur without an increase in exposure. This could be interpreted as indicating that health had been jeopardised.</p>	<p>Women with reproductive capacity must be subject to a lower blood-lead suspension level than other workers, to protect any developing unborn child.</p> <p>Once their pregnancy is confirmed, women who are subject to medical surveillance under the lead Directive will normally be suspended from work which exposes them significantly to lead.</p> <p>European limit values are in the process of being reviewed.</p> <p>Because the elimination of lead from the body is a very slow process, fertile women should be informed of this. The employer must ensure that exposure to lead is reduced and that women have the option of placement elsewhere until this has been done.</p> <p>In view of this, banning pregnant and breastfeeding women from all lead-containing areas may be the only acceptable option. This is particularly advisable if there is exposure to organic lead compounds.</p>	<p>Council Directive 82/605/EEC (exposure to metallic lead at work) which will be repealed upon transposal by the Member States of Directive 98/24/EC (by 5 May 2001).</p>
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<p>Chemical agents and industrial processes in Annex 1 to Directive 90/394/EEC</p>	<p>Those industrial processes listed in Annex 1 of Directive 90/394/EEC and referred to in Annex 1B of Directive 92/85/EEC may give rise to carcinogenic risk.</p> <p>If there are carcinogens, this should be clearly stated.</p>	<p>Directive 90/394/EEC requires a detailed risk assessment to be carried out.</p> <p>Avoid exposure. If risks cannot be assessed and controlled by collective measures, appropriate steps should be taken to inform and train workers.</p>	<p>Council Directive 90/394/EEC (carcinogens at work)</p>
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