

# INFORMATION RELATED TO SAFETY OF PREGNANT AND BREASTFEEDING WOMEN WHEN WORKING IN GEOCHEMISTRY LABS

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**Basis:** Communication from the Commission (of the European Communities) on the Guidelines on the assessment of the chemical, physical and biological agents and industrial processes considered hazardous for the safety or health of pregnant workers and workers who have recently given birth or are breastfeeding (Council Directive 92/85/EEC).

Full text: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52000DC0466&from=EN>

In Icelandic: [http://www.vinnueftirlit.is/media/sertaekir-vinnuumhverfisvisar/leidb\\_um\\_ahaettum\\_i\\_starfsumh\\_thung\\_kvenna\\_alid\\_barn\\_brjost.pdf](http://www.vinnueftirlit.is/media/sertaekir-vinnuumhverfisvisar/leidb_um_ahaettum_i_starfsumh_thung_kvenna_alid_barn_brjost.pdf)

Version with new amendments, including new risk phrases: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008R1272&from=EN>

Icelandic regulation 931/2000: <http://www.reglugerd.is/reglugerdir/allar/nr/931-2000>

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**Compilation of information from the above documents regarding specific risks related to chemical agents and relevant to women working in aqueous geochemistry labs of the Institute of Earth Sciences at the University of Iceland. (For specific risks related to physical and biological risks, as well as an overview over all chemical risks, please consult the above documentation)**

*Following substances are harmful to the fetus and/or the infant and pregnant/breastfeeding women should avoid working with these compounds:*

- Mercury** and mercury derivatives
- Lead** and lead derivatives
- Heavy metals** and their derivatives
- Chemical agents of **known and dangerous percutaneous absorption** (i.e. absorption through the skin – mention of dermal toxicity in MSDS)

The first 3 months of pregnancy (first trimester) is the most sensitive time for any exposure to chemicals. Therefore, it is important to evaluate each work procedure and compounds to be used before allowing pregnant and/or lactating women to work with or near such chemicals. Always look at the most recent MSDS and study the H (R) statements: Substances that are labelled with **any of the following hazard statements should be avoided:**

*New hazard categories and “H” statements (after 1.12.2010)*

- germ cell mutagenicity, category 1A, 1B or 2 (**H340, H341**);
- carcinogenicity, category 1A, 1B or 2 (**H350, H350i, H351**);

- reproductive toxicity, category 1A, 1B or 2 or the additional category for effects on or via lactation (**H360, H360D, H360FD, H360Fd, H360Df, H361, H361d, H361fd, H362**);
- specific target organ toxicity after single exposure, category 1 or 2 (**H370, H371**);

*Old "R" hazard statements (Classification as before 1.12.2010):*

- **R40**: possible risk of irreversible effects (corresponds to H351)
- **R45**: may cause cancer (corresponds to H350)
- **R46**: may cause heritable genetic damage (corresponds to H340)
- **R49**: may cause cancer by inhalation (corresponds to H350i)
- **R61**: may cause harm to the unborn child (corresponds to H360D, H360FD, H360Df)
- **R63**: possible risk of harm to the unborn child (corresponds to H361d, H360Fd)
- **R64**: may cause harm to breastfed babies (corresponds to H362)

Note: Hazard statements are found in every chemical's Material Safety Data Sheet (MSDS).  
**Important: Only use most up-to-date MSDS containing full list of H-statements and toxicological information (recommended: MSDS from Sigma-Aldrich or Merck (NOT ScienceLab)). This information can change, so it is important to keep updating the MSDS's.**

Vinnueftirlit (the Administration of Occupational Safety and Health) is responsible for this kind of issues. At the University of Iceland, the Safety Committee handles this subject and they can be contacted in case there is a need for information concerning specific chemicals.