References

In this guide

In this guide

- 1. <u>Introduction and Background Annex A Effects of Mercury on Maternal</u> Health
- 2. Previous evaluations and Toxicity
- 3. Absorption, distribution, metabolism, and excretion (ADME) Annex A
- 4. Toxicity Annex A
- 5. Derivation of health-based guidance value (HBGV) Annex A
- 6. Exposure Assessment Annex A
- 7. Risk characterisation Annex A
- 8. Aggregate characterisation and Conclusions Annex A
- 9. List of Abbreviations and Technical terms Annex A
- 10. References Annex A TOX/2025/22

This is a paper for discussion. This does not represent the views of the Committee and should not be cited.

Agency for Toxic Substances and Disease Registry (ATSDR). 2024. Toxicological Profile for Mercury. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service. Mercury | Toxicological Profile | ATSDR

Ander, E. L., Johnson, C. C., Cave, M. R., Palumbo-Roe, B., Nathanail, C. P., & Lark, R. M. (2013). Methodology for the determination of normal background concentrations of contaminants in English soil. **Science of The Total Environment**, 454–455, 604–618.

https://doi.org/10.1016/j.scitotenv.2013.03.005

Bates, B., Collins, D., Jones, K., Page, P., Roberts, C., Steer, T., Swan, G. (2020). National Diet and Nutrition Survey Rolling programme Years 9 to 11 (2016/2017 to 2018/2019). National Diet and Nutrition Survey

Bates, B.; Cox, L.; Nicholson, S.; Page, P.; Prentice, A.; Steer, T.; Swan, G. (2016) National Diet and Nutrition Survey Results from Years 5 and 6 (combined) of the Rolling Programme (2012/2013 – 2013/2014) National Diet and Nutrition Survey

Bates, B.; Lennox, A.; Prentice, A.; Bates, C.; Page, P.; Nicholson, S.; Swan, G. (2014) National Diet and Nutrition Survey Results from Years 1, 2, 3 and 4 (combined) of the Rolling Programme (2008/2009 – 2011/2012) National Diet and Nutrition Survey

Bocca, B., Ruggieri, F., Pino, A., Rovira, J., Calamandrei, G., Martínez, M. Á., Domingo, J. L., Alimonti, A., & Schuhmacher, M. (2019). Human biomonitoring to evaluate exposure to toxic and essential trace elements during pregnancy. Part A. concentrations in maternal blood, urine and cord blood. **Environmental Research, 177,** 108599. https://doi.org/10.1016/j.envres.2019.108599

COT Meeting 4th February 2025. Discussion paper on the effects of mercury on maternal health (TOX/2025/03). The effects of mercury on maternal health - Introduction and Background | Committee on Toxicity

COT, (2004): Annex 3. Updated COT Statement on a survey of methylmercury in fish and shellfish. fishreport200406.pdf

COT, (2018). Statement on potential risks from methylmercury in the diet of infants aged 0 to 12 months and children aged 1 to 5 years. cotstatementonmethylmercury.pdf (food.gov.uk)

Dean, J. R., Deary, M. E., Gbefa, B. K., & Scott, W. C. (2004). Characterisation and analysis of persistent organic pollutants and major, minor and trace elements in Calabash chalk. **Chemosphere, 57**(1), 21–25.

https://doi.org/10.1016/j.chemosphere.2004.05.023

EFSA Panel on Contaminants in the Food Chain (CONTAM), (2008). Mercury as undesirable substance in animal feed—Scientific opinion of the Panel on Contaminants in the Food Chain. **EFSA Journal, 6**(4), 654. https://doi.org/10.2903/j.efsa.2008.654

EFSA Panel on Contaminants in the Food Chain (CONTAM). (2004). Opinion of the Scientific Panel on contaminants in the food chain related to mercury and methylmercury in food. **EFSA Journal** 2004; 2(3):34, 14 pp. doi: 10.2903/j.efsa.2004.34

EFSA Panel on Contaminants in the Food Chain (CONTAM). (2012). Scientific Opinion on the risk for public health related to the presence of mercury and methylmercury in food. **EFSA Journal** 2012; 10(12):2985, 241 pp. doi: 10.2903/j.efsa.2012.2985.

Environment Agency, 2009, <u>Microsoft Word - 0901115 CLEA Report for publication.doc</u> (publishing.service.gov.uk). Accessed 20.04.22

FAO/WHO. (1966). Specifications for the identity and purity of food additives and their toxicological evaluation: some emulsifiers and stabilizers and certain other substances: tenth report of the Joint FAO/WHO Expert Committee on Food Additives. WHO technical report series; 373.

FAO/WHO. (1970). Evaluation of food additives: specifications for the identity and purity of food additives and their toxicological evaluation, some extraction solvents and certain other substances: fourteenth report of the Joint FAO/WHO Expert Committee on Food Additives. WHO technical report series; 462.

FAO/WHO. (1972). Evaluation of certain food additives and the contaminants mercury, lead, and cadmium: Sixteenth report of the Joint FAO/WHO Expert Committee on Food Additives. WHO technical report series; 505.

FAO/WHO. (1978). Evaluation of certain food additives: twenty-second report of the Joint FAO/WHO Expert Committee on Food Additives. WHO technical report series; 631.

FAO/WHO. (1988). Evaluation of certain food additives and contaminants: thirty-third report of the Joint FAO/WHO Expert Committee on Food Additives. WHO technical report series; 776.

FAO/WHO. (2004). Evaluation of certain food additives and contaminants: Sixty-first report of the Joint FAO/WHO Expert Committee on Food Additives. WHO technical report series; 922.

FAO/WHO. (2007). Evaluation of certain food additives and contaminants: sixty-seventh report of the Joint FAO/WHO Expert Committee on Food Additives. WHO technical report series; 940.

FAO/WHO. (2011). Safety evaluation of certain contaminants in food: Prepared by the seventy-second meeting of the Joint FAO/WHO Expert Committee on Food Additives. WHO technical report series; 959.

Fawcett, E. J., Fawcett, J. M., & Mazmanian, D. (2016). A meta-analysis of the worldwide prevalence of pica during pregnancy and the postpartum period. International Journal of Gynaecology and Obstetrics: The Official Organ of the International Federation of Gynaecology and Obstetrics, 133(3), 277–283. https://doi.org/10.1016/j.ijgo.2015.10.012

Food & Environment Research Agency (FERA), (2015). Total Diet Study of metals and other elements in food. Report for the UK Food Standards Agency (FS102081). Total diet study: metals and other elements | Food Standards Agency

Haynes, W. M., Lide, D. R., & Bruno, T. J. (2016). **CRC Handbook of Chemistry And Physics: a ready-reference book of chemical and physical data**. 2016-2017, 97th Edition / Boca Raton, Florida, CRC Press. https://doi.org/10.1201/9781315380476

IARC. 1993. Mercury and mercury compounds. IARC monographs on the evaluation of carcinogenic risks to humans. Volume 58. Beryllium, cadmium, mercury, and exposures in the glass manufacturing industry. Lyon, France: International Agency for Research on Cancer. 239-345. https://publications.iarc.fr/76. November 11, 2020.

Lee, B.-E., Hong, Y.-C., Park, H., Ha, M., Koo, B. S., Chang, N., Roh, Y.-M., Kim, B.-N., Kim, Y.-J., Kim, B.-M., Jo, S.-J., & Ha, E.-H. (2010). Interaction between GSTM1/GSTT1 Polymorphism and Blood Mercury on Birth Weight. **Environmental Health Perspectives, 118**(3), 437–443. https://doi.org/10.1289/ehp.0900731

Li H, Lin X, Zhao J, Cui L, Wang L, Gao Y, Li B, Chen C and Li Y, (2019). Intestinal methylation and demethylation of mercury. 102(5):597-604. http://doi.org/10.1007/s00128-018-2512-4.

Miao, D., Young, S. L., & Golden, C. D. (2015). A meta-analysis of pica and micronutrient status. **American Journal of Human Biology, 27**(1), 84–93. https://doi.org/10.1002/ajhb.22598

NTP (National Toxicology Program). (1993). Toxicology and Carcinogenesis Studies of Mercuric Chloride (CAS No. 7487-94-7) in F344 Rats and B6C3F1 Mice (Gavage Studies). **National Toxicology Program Technical Report Series, 408**, 1-260. Abstract for TR-408

NTP. 2016. Mercury. 14th Report on carcinogens. National Toxicology Program. 2016 Annual Report (PDF).

Otte P., Lijzen J., Otte J., Swartjes F., Versluijs C., (2001). Evaluation and revision of the CSOIL parameter set. RIVM Report 711701021. Bilthoven: National Institute of Public Health and Environment.

Roberts, C.; Steer, T.; Maplethorpe, N.; Cox, L.; Meadows, S.; Page, P.; Nicholson, S.; Swan, G. (2018) National Diet and Nutrition Survey Results from Years 7 and 8 (combined) of the Rolling Programme (2014/2015 – 2015/2016) National Diet and Nutrition Survey

SACN (2011), The influence of maternal, fetal and child nutrition on the development of chronic disease in later life. SACN Early Life Nutrition Report.pdf

SACN (2018), Feeding in the First Year of Life. SACN report on Feeding in the First Year of Life.pdf

Sakamoto, M., Chan, H. M., Domingo, J. L., Koriyama, C., & Murata, K. (2018). Placental transfer and levels of mercury, selenium, vitamin E, and docosahexaenoic acid in maternal and umbilical cord blood. **Environment International, 111**, 309–315. https://doi.org/10.1016/j.envint.2017.11.001

Suda, I., Totoki, S., Uchida, T., & Takahashi, H. (1992). Degradation of methyl and ethyl mercury into inorganic mercury by various phagocytic cells. **Archives of Toxicology, 66**(1), 40–44. https://doi.org/10.1007/BF02307268

Tanaka, T., Naganuma, A., & Imura, N. (1992). Routes for renal transport of methylmercury in mice. **European Journal of Pharmacology: Environmental Toxicology and Pharmacology, 228**(1), 9–14. https://doi.org/10.1016/0926-6917(92)90005-W

Tanaka-Kagawa, T., Naganuma, A., & Imura, N. (1993). Tubular secretion and reabsorption of mercury compounds in mouse kidney. **The Journal of Pharmacology and Experimental Therapeutics, 264**(2), 776–782.

U.S. EPA. Exposure Factors Handbook (1997, Final Report). U.S. Environmental Protection Agency, Washington, DC, EPA/600/P-95/002F a-c, 1997. <u>Exposure Factors Handbook (1997, Final Report) | IRIS | US EPA</u>

Vigeh, M., Nishioka, E., Ohtani, K., Omori, Y., Matsukawa, T., Koda, S., & Yokoyama, K. (2018). Prenatal mercury exposure and birth weight. **Reproductive Toxicology, 76**, 78–83. https://doi.org/10.1016/j.reprotox.2018.01.002

WHO & International Programme on Chemical Safety (IPCS). (1990). Methylmercury / published under the joint sponsorship of the

United Nations Environment Programme, the International Labour Organisation, and the World Health Organization. **World Health Organization**. https://iris.who.int/handle/10665/38082

WHO, (2017). Mercury and health Fact Sheet. http://www.who.int/mediacentre/factsheets/fs361/en/, accessed July 2024.

Secretariat

May 2025