

Report of the Chemical Review Committee on the work of its first meeting

Annex V

Rationales for conclusions by the Committee that notifications had met the criteria of the Annex II of the Rotterdam Convention

A. Notification for methyl bromide (CAS No. 74-83-9) from the Netherlands

1. In reviewing the notification of final regulatory action by the Netherlands to severely restrict methyl bromide, together with the supporting documentary information provided by the Party, the Committee was able to confirm that the action had been taken in order to protect human health and the environment. The major health concern is from acute exposure. Delayed onset of symptoms may occur. Fatal poisoning has resulted from exposures to relatively high concentration (from 33,000 mg/m³ or 8,600 ppm onwards) of methyl bromide vapours. Non-fatal poisoning has resulted from exposure to concentrations as low as 390–1,950 mg/m³. Organs affected by exposure include the nervous system, lung, nasal mucosa, kidney, eye and skin. Methyl bromide is an ozone-depleting substance and also has high toxicity for aquatic organisms. In addition, it was shown that it had potential following uses as a soil disinfectant to pollute surface water and to leach to groundwater.

2. The Committee established that the final regulatory action had been taken on the basis of risk evaluation and that the evaluation had been based on a review of scientific data. The available documentation demonstrated that the data had been generated in accordance with scientifically recognized methods, and that the data reviews had been performed and documented in accordance with generally recognized scientific principles and procedures. It also showed that the final regulatory action had been based on chemical-specific risk evaluations taking into account the conditions of exposure within the Netherlands.

3. The risk evaluation of the Netherlands focused on the behaviour and effects of methyl bromide in air, groundwater and surface water. It took into account data on the ozone-depleting potential, data on the leaching potential and data on the ecotoxicological effects of methyl bromide, e.g., the toxicity for fish. The ozone-depletion factor of methyl bromide was approximately 0.6, related to the substance CFC13. The estimated concentration in groundwater amounted to approximately 100 µg/L, based on a soil degradation half-life time of about 15 days and a sorption constant of about 2.5 L/kg. The measured concentrations in surface water amounted to approximately 9 mg/L, which resulted in the expectation of a very high risk for fish. The Committee agreed that the evaluation of the risks to aquatic organisms met the requirements of the criterion linked to the prevailing conditions of use in the Netherlands. With regard, however, to the effects of ozone depletion as a global concern, the Committee noted that the relevance of prevailing conditions for risk evaluation needed further discussion and guidance from the Conference of the Parties.

4. The Committee concluded that the final regulatory action provided a sufficiently broad basis to merit including methyl bromide in Annex III of the Rotterdam Convention in the pesticide category. It noted that the action had led to a decrease in the quantities of the chemicals used in the notifying Party. Previous uses as a soil disinfectant had been banned since 1992, and only the uses as space fumigant in gas proof rooms were still registered. The use of methyl bromide in Dutch agriculture had been reduced dramatically because of the decision to ban the substance from the use as a soil fumigant. As a result, emissions to air and to ground and surface water had been minimized. Hence, the risk for human health or environment in the notifying Party had been significantly reduced.

5. The Committee also took into account that the considerations underlying the final regulatory action were not of limited applicability since use of methyl bromide poses human health risks, environmental risks and global effects (methyl bromide is included in the Montreal Protocol). On the basis of information provided to the members at the first session of the Chemical Review Committee and other available information, the Committee concluded also that there was evidence of ongoing international trade in methyl bromide.

6. The Committee noted that the final regulatory action was not based on concerns about intentional misuse of methyl bromide.

7. At its first session, the Committee concluded that the notification of final regulatory action by the Netherlands met the information requirements of Annex I and the criteria set out in Annex II to the Convention.