



EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

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New measures to reduce risks from exposure to the excipient N-methyl pyrrolidone in veterinary medicines

On 8 December 2022, EMA's veterinary medicines committee, CVMP, recommended new measures to reduce the risks from exposure to N-methyl pyrrolidone (NMP) for women who may handle veterinary medicines containing this excipient and animals that are given these medicines. The recommendations addressed inconsistencies in the product information of veterinary medicines containing NMP, which are marketed in many European Union (EU) Member States.

NMP is an excipient (ingredient of a medicine other than the active substance) used in some veterinary medicines that is classified as a teratogen (a substance that can cause birth defects following exposure during pregnancy) in laboratory animals. There is therefore the possibility that NMP could cause birth defects in the children of women who handle or come into contact with NMP-containing medicines during their pregnancy, and in the offspring of animals given these medicines.

The CVMP recommended that veterinary medicines that expose the user to amounts of NMP above a certain threshold should not be given to animals by pregnant women or by women who may be pregnant. Furthermore, women who are able to have children should exercise caution when using these medicines. This includes wearing personal protective equipment such as gloves, particularly for pour-on and spot-on products, shampoos, sprays and concentrates for oral solutions.

The Committee also recommended that in the absence of studies demonstrating the safe use of veterinary medicines containing NMP in the target animal species during pregnancy, lactation or lay, NMP-containing veterinary medicines should only be given to animals that are pregnant, lactating, in lay or intended for breeding after assessment of the benefits and risks by the treating veterinarian. To assist veterinarians in their decision-making, the product information must specify the precise quantity of NMP contained in these veterinary medicines.

The recommendations follow a review by the CVMP of all available data and the evaluation of [user risk assessments](#) for veterinary medicines containing NMP to assess the risk for users with each pharmaceutical form of these medicines. The product information of these veterinary medicines is being updated with the new recommendations and warnings.

The CVMP recommendations were sent to the European Commission, which issued a final legally binding decision applicable in all EU Member States on 28 March 2023.



Information for users

- Veterinary medicines containing N-methyl pyrrolidone should not be given to animals by pregnant women or women who may be pregnant.
- Women who are able to have children should exercise caution when giving veterinary medicines containing N-methyl pyrrolidone to animals, to avoid accidental exposure. This includes wearing personal protective equipment such as gloves when giving these products to animals, specifically for pour-on and spot-on products, shampoos, sprays and concentrates for oral solutions.
- If you have questions about the use of veterinary medicines containing N-methyl pyrrolidone, contact your veterinarian.

Information for veterinarians

- EMA recommended changes to the product information of veterinary medicines containing the excipient N-methyl pyrrolidone, to ensure that advice regarding their administration or handling by women who are or may be pregnant or women who can have children, as well as their use in laying, breeding or pregnant animals is consistent across the EU.
- Laboratory studies have shown that N-methyl pyrrolidone has foetotoxic effects in rats and rabbits. The safety of N-methyl pyrrolidone during pregnancy, lactation, lay or in animals intended for breeding has not been established in other animals, with the exception of certain spot-on products in dogs.
- Veterinary medicines containing N-methyl pyrrolidone should only be given to animals that are pregnant, lactating, in lay or intended for breeding after an assessment of the benefits and risks has been made by the veterinarian treating individual animals.

More about the medicine

N-methyl pyrrolidone (NMP) is an excipient that is used in veterinary medicines as a solvent, to dilute, dissolve or disperse the item(s) containing the active substance.

Veterinary medicines containing the excipient NMP are available in the EU under various trade names and in different formulations, for use mainly in companion animals and large farm animals. These medicines are available as injections, solutions for infusion, spot-on and pour-on products, shampoos, sheep dips, sprays and concentrates for oral solutions for use in the drinking water of animals or solutions for fish treatment.

More about the procedure

The review of veterinary medicines containing NMP was initiated on 12 May 2022 at the request of Germany, under [Article 82 of Regulation \(EU\) 2019/6](#).

The review was carried out by the Committee for Veterinary Medicinal Products (CVMP), the Committee responsible for the evaluation of veterinary medicines, which made a set of recommendations. The CVMP recommendations were sent to the European Commission, which issued an EU-wide legally binding decision on 28 March 2023.