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Safety and efficacy of iron dextran as a feed additive for piglets

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Abstract

The additive, 'Iron dextran 10%', is a liquid preparation containing iron dextran (25%, of which 10% is total iron), sodium chloride (1.5%), phenol (0.4%) and water (73.1%). Iron dextran 10% is considered safe for suckling piglets when given at an oral dose of 1 mL/kg body weight (bw) once in each of the first 2 weeks of life; this dose corresponds to 100 mg Fe/kg bw. The administration of iron dextran 10% to piglets deficient in vitamin E and/or selenium is considered a risk. The oral use of iron dextran 10% in suckling piglets does not pose any safety concerns to consumers, provided that the conditions identified as safe for the target animal are respected. Iron dextran 10% is considered a respiratory sensitiser and may be harmful if inhaled; however, exposure by inhalation is not expected; therefore, the risk is considered to be negligible. Iron dextran 10% is an irritant to skin and eyes; a risk by skin sensitisation cannot be excluded. The presence of phenol in the additive should be considered to pose a hazard for users. The use of the additive for suckling piglets at the proposed level does not pose a safety concern to the environment. The available studies with orally administered iron dextran indicate that the additive is a bioavailable source of iron for suckling piglets; however, the efficacy of the additive when given to newborn pigs as proposed via water for drinking (voluntary intake) has not been demonstrated. The Panel proposed some recommendations regarding the dextran used in the manufacture of the additive and the procedure for administering the additive to piglets.

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Keywords: nutritional additive, compounds of trace elements, iron, iron dextran, safety, efficacy, suckling piglets

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