This is provisional English translation of an excerpt from the original full report.

Risk Assessment Report

Calciferol and 25-hydroxycholecalciferol
(Veterinary Medicinal Products, Feed Additives and Exempted Substances)

Food Safety Commission of Japan (FSCJ)
July 2014

SUMMARY

FSCJ conducted a risk assessment necessary for the following three items, based on reports of EFSA (European Food Safety Authority) and EMEA (European Medicines Agency): 1) designating calciferol and its metabolite, 25-hydroxycholecalciferol as Exempted Substances [1], 2) designating 25-hydroxycholecalciferol as a feed additive[2], and 3) establishing standards and criteria for this feed additive and for feeds which contain this additive[3].

Calciferol is the general term for antirachitic lipid-soluble vitamin, vitamin D. In humans, physiologically important compounds in this group are ergocalciferol (also known as vitamin D_2) and cholecalciferol (also known as vitamin D_3). Calciferol is contained in fish meat, butter and egg yolk, and usually taken through foods, and it is also synthesized *in vivo* in humans by UV irradiation.
Adverse effects of excessive intake of calciferol have been often concerned and it is likely that the source of the excessive intake is not derived from daily foods, but from supplements ingested.

According to EFSA, the upper limit of the allowable range (UL) never exceeds even if cholecalciferol is added to feed at the currently approved maximum dose. In addition, EFSA specified the UL in each age group taking hypercalcemia as the index for its toxicity, and the intake of calciferol in each age group was shown to never exceed the UL even in humans who take calciferol in a large amount.
EMEA concluded that it was unnecessary to establish the Maximum Residue Limit (MRL) for calciferol as a veterinary medicinal product.

Moreover, calciferol has been used in the variety of fields including feed additives and food additives, and has not caused any major food safety concerns from its use.

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[1] On May 29, 2006 the Ministry of Health, Labour and Welfare (MHLW) introduced the positive list system for agricultural chemicals remaining in foods to prohibit the distribution of foods that contain agricultural chemicals above a certain level if maximum residue limits (MRLs) have not been established. Exempted Substances are designated as substances having no potential to cause damage to human health by the Minister of Health, Labour and Welfare, based on the provision of Paragraph 3, Article 11 of the Food Sanitation Law, and these substances are not subjected to the positive list system.

[2] Designation based on paragraph (3) of article 2 of the Act on Safety Assurance and Quality Improvement of Feeds (Act No. 35 of 1953).

[3] Establishing standards and criteria based on paragraph (1) of article 3 of the Act on Safety Assurance and Quality Improvement of Feeds (Act No. 35 of 1953).

It is thus concluded that calciferol is unlikely to be excessively ingested in humans through food. Furthermore, no adverse effects of calciferol-containing food have been observed through longtime dietary habits.

Regarding 25-hydoxycholecalciferol, the toxicity is unlikely higher than that of calciferol since it is a metabolite of cholecalciferol. In addition, in humans, excessive intake of 25-hydroxycholecalciferol through food is most unlikely.

Consequently, FSCJ concluded that risks of calciferol and 25-hydroxycholecalciferol to human health through residues in foods are negligible as long as normally used as veterinary medicinal products and feed additives.