

## 19. Temporary list of food sources for deep ocean water mineral extraction

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### ABSTRACT

For a temporary addition of deep ocean water mineral extract to food source, manufacturing process, component characteristics of mineral extract, domestic and overseas consumption basis and recognition data, and toxic DB search data of applied material are required.

Toxicity tests on the material to be applied should also be tested by GLP certificated institute, where single-dose administration (Rodent, non-Rodent ) and four-week oral administration test (capacity calculation), 13 weeks repeated oral administration test, return mutation experiment, chromosomal aberration test, micronucleus experiment. The toxic test results showed no adverse reaction or toxicity.

Meanwhile, the calculation of food intake for mineral extract utilized the NOAEL (Nonotoxicity Assessment) derived from toxic test results and the National Health Nutrition Survey data from 2014 to 2016.

The upper limit of mineral extract in the deep water of the oceans was also less than the upper limit of the 25 mg/kg BW/day of the ADI. Thus, the upper bound for each type of food for each type of mineral extract proposed in this study was assessed to be safe.