

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

Risk Assessment Report

DCIP (Pesticides)

Food Safety Commission of Japan (FSCJ)
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ABSTRACT

FSCJ conducted a risk assessment of DCIP (CAS No.108-60-1), an organochlorine nematocide, based on results from various studies.

The data used in the assessment include fate in animals (rats), fate in plants (tomatoes and citrus), residues in crops, subacute toxicity (rats, mice and dogs), subacute neurotoxicity (rats), chronic toxicity (dogs), combined chronic toxicity/carcinogenicity (rats and mice), carcinogenicity (rats), three-generation reproductive toxicity (rats), developmental toxicity (rats and rabbits), and genotoxicity.

Major adverse effects of DCIP were observed as depression of body weight and anemia. DCIP is considered to have no neurotoxicity, carcinogenicity, reproductive toxicity, teratogenicity, and genotoxicity relevant to human health.

Based on various studies, DCIP (parent compound only) was identified as the relevant substance for the residue definition for dietary risk assessment in agricultural products.

The lowest no-observed-effect level (NOAEL) obtained in all studies was 2.70 mg/kg bw/day in a two-year combined chronic toxicity/carcinogenicity study in rats. FSCJ specified an acceptable (ADI) of 0.027 mg/kg bw/day, applying a safety factor of 100 to the NOAEL.

The lowest NOAEL for adverse effects elicited by a single oral administration of DCIP was 50 mg/kg bw/day observed in a 28-day subacute neurotoxicity in rats and a 28-day subacute toxicity study in dogs. Consequently, FSCJ specified an acute reference dose (ARfD) of 0.5 mg/kg bw, applying a safety factor of 100 to the NOAEL.