

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

Risk Assessment Report

Quinclorac

(Pesticides)

Food Safety Commission of Japan (FSCJ)

February 2015

ABSTRACT

FSCJ conducted a risk assessment of quinclorac (CAS No. 84087-01-4), an herbicide of quinolinecarboxylic acid compound, based on the summary reports made by applicants and documents from the US and Australian Government.

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

Major adverse effect of quinclorac observed is decreased body weight gain. Quinclorac did not show any of neurotoxicity, carcinogenicity, reproductive toxicity, teratogenicity and genotoxicity relevant to human health.

Based on the above results, quinclorac and metabolite C were identified as the residue definition for dietary risk assessment in agricultural products, and only quinclorac (parent compound) was for livestock products.

The lowest no-observed-adverse-effect level (NOAEL) in toxicological studies was 34.9 mg/kg bw/day in a one-year chronic toxicity study in dogs. Applying a safety factor of 100 to the NOAEL, FSCJ specified an acceptable daily intake (ADI) of 0.34 mg/kg bw/day.

The lowest NOAEL for potential adverse effects of a single oral administration of quinclorac was 150 mg/kg bw obtained in an acute neurotoxicity study in rats. Applying a safety factor of 100 to the NOAEL, FSCJ specified the ARfD of 1.5 mg/kg bw.