

chronic Population Adjusted Dose (aPAD or cPAD) is a modification of the RfD to accommodate this type of FQPA SF.

For non-dietary risk assessments (other than cancer) the UF is used to determine the LOC. For example, when 100 is the appropriate UF (10X to account for interspecies differences and 10X for intraspecies differences) the LOC is 100. To estimate risk, a ratio of the NOAEL to exposures (margin of exposure (MOE) = NOAEL/exposure) is calculated and compared to the LOC.

The linear default risk methodology (Q*) is the primary method currently used by the Agency to quantify carcinogenic risk. The Q* approach assumes that any amount of exposure will lead to some degree of cancer risk. A Q* is calculated and used to estimate risk which represents a probability of occurrence of additional cancer cases (e.g., risk is expressed as 1×10^{-6} or one in a million). Under certain specific circumstances, MOE calculations will be used for the carcinogenic risk assessment. In this non-linear approach,

a "point of departure" is identified below which carcinogenic effects are not expected. The point of departure is typically a NOAEL based on an endpoint related to cancer effects though it may be a different value derived from the dose response curve. To estimate risk, a ratio of the point of departure to exposure ($MOE_{cancer} = \text{point of departure/exposures}$) is calculated. A summary of the toxicological endpoints for cyprodinil used for human risk assessment is shown in the following Table 2:

TABLE 2.—SUMMARY OF TOXICOLOGICAL DOSE AND ENDPOINTS FOR CYPRODINIL FOR USE IN HUMAN RISK ASSESSMENT

Exposure Scenerio	Dose used in Risk Assessment UF	FQPA SF and Endpoint for Risk Assessment	Study, Toxicological Endpoint
Acute Dietary females 13–50 years of age	Developmental NOAEL = 150 mg/kg/day UF = 100 Acute RfD = 1.5 mg/kg/day	Special FQPA SF* = 1X aPAD = acute RfD ÷ Special FQPA SF = 1.5 mg/kg/day	Developmental Toxicity - rabbit Developmental LOAEL = 400 mg/kg/day based on slight increase of litters showing extra ribs (13th).
Chronic Dietary all populations	NOAEL= 2.7 UF = 100 Chronic RfD = 0.03 mg/kg/day	Special FQPA SF = 1X cPAD = chronic RfD ÷ Special FQPA SF = 0.03 mg/kg/day	2–Year Chronic Toxicity/ Carcinogenicity-rat LOAEL = 35.6 mg/kg/day based on degenerative liver lesions (spongiosis hepatitis) in males.
Incidental Oral Short-Term (1–30 days)(Residential)	oral NOAEL= 62 mg/kg/day	LOC for MOE = 100 (Residential, includes the Special FQPA SF of 1X)	28–Day Feeding/Range-finding - rat LOAEL = 299 mg/kg/day based on decreased body-weight gain, increased cholesterol and phospholipid levels, microcytosis, and hepatocyte hypertrophy.
Incidental Oral Intermediate-Term (1–6 months)(Residential)	oral NOAEL= 2.7 mg/kg/day	LOC for MOE = 100 (Residential, includes the Special FQPA SF of 1X)	2–Year Chronic Toxicity/ Carcinogenicity -rat LOAEL = 35.6 mg/kg/day based on degenerative liver lesions (spongiosis hepatitis) in males.
Dermal Short-Term (1–30 days)(Residential)	oral NOAEL= 62 mg/kg/day (dermal absorption rate = 30%)	LOC for MOE = 100 (Residential, includes the Special FQPA SF of 1X)	28–Day Feeding/Range-finding - rat LOAEL = 299 mg/kg/day based on decreased body-weight gain, increased cholesterol and phospholipid levels, microcytosis, and hepatocyte hypertrophy.
Dermal Intermediate-Term(1–6 months) and Long-Term (26 months)(Residential)	oral NOAEL= 2.7 mg/kg/day(dermal absorption rate = 30%)	LOC for MOE = 100 (Residential, includes the Special FQPA SF of 1X)	2–Year Chronic Toxicity/ Carcinogenicity - Rat LOAEL = 35.6 mg/kg/day based on degenerative liver lesions (spongiosis hepatitis) in males.
Inhalation Short-Term(1–30 days) (Residential)	oral NOAEL = 62 mg/kg/day (inhalation absorption rate = 100%)	LOC for MOE = 100 (Residential, includes the Special FQPA SF of 1X)	28–Day Feeding/Range-finding - rat LOAEL = 299 mg/kg/day based on decreased body-weight gain, increased cholesterol and phospholipid levels, microcytosis, and hepatocyte hypertrophy.
Inhalation Intermediate-Term(1–6 months) and Long-Term (26 months) (Residential)	oral NOAEL = 2.7 mg/kg/day (inhalation absorption rate = 100%)	LOC for MOE = 100 (Residential, includes the Special FQPA SF of 1X)	2–Year Chronic Toxicity/ Carcinogenicity in Rats LOAEL = 35.6 mg/kg/day based on degenerative liver lesions (spongiosis hepatitis) in males.
Cancer (oral, dermal, inhalation)	Classification: "Not likely to be carcinogenic to humans"		

*The reference to the special FQPA SF refers to any additional SF retained due to concerns unique to the FQPA.