Exhibit 6. Soil Dermal Contact Dose Equation

Doses from dermal contact with soil can be calculated as follows:

$$D = (C \times A \times AF \times EF \times CF) / BW$$

where,

D = dose (mg/kg/day)
C = contaminant concentration (mg/kg)
A = total soil adhered (mg)
AF = bioavailability factor (unitless)
EF = exposure factor (unitless)
CF = conversion factor (10^6 kg/mg)
BW = body weight (kg)

Default Dermal Exposure Values

Age (yrs)	Body Weight (kg)	Total Surface (cm^2)	% Area Exposed	Exposed Area (cm^2)	Total Soil Adhered (mg)
0–1	10	3,500	30	1,050	210
1–11	30	8,750	30	2,625	525
12–17	50	15,235	28	4,266	299
18–70	70	19,400	24	4,656	326

Total soil adhered (A) is estimated by multiplying the exposed area by the default soil adherence concentration of 0.07 mg/cm^2 for adults and 0.2 mg/cm^2 for children.

Source: EPA 2001; EPA 1997