

APPENDIX I
DATA TABLE FOR MAMMALIAN STUDIES

Glyphosate Acute Toxicity Profile				
Guideline No.	Study Type	MRID(s)	Results	Toxicity Category
870.1100	Acute oral	41400601	LD ₅₀ > 5,000 mg/kg	IV
870.1200	Acute dermal	41400602	LD ₅₀ > 5,000 mg/kg	IV
870.1300	Acute inhalation	None	The requirement for an acute inhalation LC ₅₀ study was waived.	None
870.2400	Acute eye irritation	41400603	Corneal opacity or irritation clearing in 7 days or less	III
870.2500	Acute dermal irritation	41400604	Mild or slight irritant	IV
870.2600	Skin sensitization	41642307	Not a sensitizer	None

Glyphosate Mammalian Toxicity Data: Subchronic, Chronic and Other Toxicity Profile	
Guideline No./ Study Type	Results
870.3100 90-Day oral toxicity (Mouse)	NOAEL = 1500 mg/kg/day in males and females LOAEL = 4500 mg/kg/day in males and females based on decreased body weight.
870.3100 90-Day oral toxicity (Range finding)	NOAEL = not established LOAEL = 50 mg/kg/day in males and females based on possible increased phosphorus and potassium values.
870.3150 90-Day oral toxicity (Rat) - Aminomethyl phosphoric acid - glyphosate plant metabolite	NOAEL = 400 mg/kg/day in males and females LOAEL = 1200 mg/kg/day in males and females based on body weight loss and histopathological lesions of the urinary bladder.
870.3200 21/28-Day dermal toxicity (Rabbit)	NOAEL = 1000 mg/kg/day in males and females LOAEL = 5000 mg/kg/day based on slight erythema and edema on intact and abraded skin of both sexes, and decreased food consumption in females.
870.3485 28-Day inhalation toxicity (rat)	NOAEL = 0.36 mg/L (HDT); LOAEL not established based on 6 hours/day, 5 days/week for 4 weeks
870.3700a Prenatal developmental in rodents (Rat)	Maternal NOAEL = 1000 mg/kg/day LOAEL = 3500 mg/kg/day based on inactivity, mortality, stomach hemorrhages and reduced body weight gain. Developmental NOAEL = 1000 mg/kg/day LOAEL = 3500 mg/kg/day based on increased incidence in the number of fetuses and litters with unossified sternebrae and decreased fetal body weight.
870.3700b Prenatal developmental in (Rabbit)	Maternal NOAEL = 175 mg/kg/day LOAEL = 350 mg/kg/day based on mortality, diarrhea, soft stools, and nasal discharge. Developmental NOAEL = 350 mg/kg/day (HDT) LOAEL = not established.
870.3800 Reproduction and fertility effects, 3-generation (Rat)	Parental/Systemic NOAEL = 30 mg/kg/day (HDT) Reproductive NOAEL = 30 mg/kg/day (HDT)

Glyphosate Mammalian Toxicity Data: Subchronic, Chronic and Other Toxicity Profile	
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	<p>Offspring NOAEL = 10 mg/kg/day</p> <p>LOAEL = 30 mg/kg/day based on focal dilation of the kidney in male F_{3b} pups.</p>
870.3800 Reproduction and fertility effects, 2-generation (Rat)	<p>Parental/Systemic NOAEL = 500 mg/kg/day in males and females</p> <p>LOAEL = 1500 mg/kg/day in males and females based on soft stools, decreased body weight gain and food consumption. Focal dilation of the kidney observed at 30 mg/kg/day in the 3-generation study was not observed at any dose level in this study.</p> <p>Reproductive NOAEL ≥ 1500 mg/kg/day (HDT) in males and females</p> <p>Offspring NOAEL = 500 mg/kg/day in males and females</p> <p>LOAEL = 1500 mg/kg/day in males and females based on decreased body weight gain during lactation.</p>
870.4100b Chronic toxicity (dog)	<p>NOAEL = 500 mg/kg/day in males and females (HDT)</p> <p>LOAEL = not established.</p>
870.4300 Carcinogenicity (Mice)	<p>NOAEL = 750 mg/kg/day in males and females</p> <p>LOAEL = 4500 mg/kg/day in males and females based on significant decreased body weight gain in both sexes, hepatocyte necrosis and interstitial nephritis in males, and increased incidence of proximal tubule epithelial basophilia and hypertrophy in the kidney of females.</p> <p>No evidence of carcinogenicity</p>
870.4300 Chronic/Carcinogenicity (Rat)	<p>NOAEL = 362 mg/kg/day in males, 447 mg/kg/day in females</p> <p>LOAEL = 940 mg/kg/day in males, 1183 mg/kg/day in females based on decreased body weight gain in females, decreased urinary pH in males, increased incidence of cataracts and lens abnormalities in males, and increased absolute and relative (to brain) liver weight in males.</p> <p>No evidence of carcinogenicity</p>
Gene Mutation 870.5265	Non-mutagenic when tested up to 1000 ug/plate, in presence and absence of activation in <i>S. typhimurium</i> strains TA98, TA100, TA1535 and TA1537.
Gene Mutation 870.5300	Non-mutagenic at the HGPRT locus in Chinese hamster ovary cells tested up to cytotoxic concentrations or limit of solubility, in presence and absence of activation.
In Vivo Cytogenetics - Bone Marrow 870.5385	Non-mutagenic in rat bone marrow chromosome assay up to 1000 mg/kg in both sexes of Sprague Dawley rats.
870.5550 Rec - Assay and Gene Mutation Assay	There was no evidence of recombination in the rec-assay up to 2,000 ug/disk with <i>B. subtilis</i> H17 (rec+) and M45 (rec-). Negative for reverse gene mutation, both with and without S-9, up to 5,000 ug/plate (or cytotoxicity) with <i>E.coli</i> SP2hcrA and <i>S. typhimurium</i> TA98, TA100, TA1535, TA1537, and TA1538.
870.7485 Metabolism and pharmacokinetics (Rat)	<p>Absorption was 30-36% in males and females.</p> <p>Glyphosate was excreted unchanged in the feces and urine (97.5% minimum). The only metabolite present in the excreta was AMPA. Less than 1% of the absorbed dose remained in the carcass, primarily bone. Repeat</p>

Glyphosate Mammalian Toxicity Data: Subchronic, Chronic and Other Toxicity Profile	
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	dosing did not alter metabolism, distribution, and excretion.