

Guidelines/Criteria	
	Reference: Choi L, Kwak MY, Kwak EH, Kim DH, Han EY, Roh T, Bae JY, Ahn IY, Jung JY, Kwon MJ, Jang DE, Lim SK, Kwack SJ, Han SY, Kang TS, Kim SH, Kim HS, Lee BM. 2010. Comparative nephrotoxicity induced by melamine, cyanuric acid, or a mixture of both chemicals in either Sprague-Dawley rats or renal cell lines. J Toxicol Environ Health, Part A 73(21-22):1407–1419.
<b>In vivo Study Type</b> Route of Administration Species & age of animals	Oral Male Sprague-Dawley rats
<b>Study Duration</b>	7 days
<b>Type of Mixture</b> Binary >2 components Similar acting or dissimilar What Mode of Action was investigated?	Yes  Toxicity is caused by binding of MEL and CA to form large molecules which precipitate in kidney.
<b>Parameters/End points Measured</b> Target organs/Critical effects Pharmacological changes or adverse effects	Kidney Haematology, nephrotoxicity markers, organ weights, histopathology
<b>Individual Components</b> Characterisation of individual compounds Name, exact chemical name, CAS no. Were dose responses established for individual components? Were no effect levels established? Were doses below the NO(A)ELs investigated?	Melamine (1,3,5-triazine-2,4,6-triamine) and Cyanuric Acid Yes Yes Yes
<b>Mixtures Investigated</b> Number of dose levels How does the mixture make-up compare to individual components? (e.g. low dose) equivalents used? No. of technical replicates per exposure condition ( <i>in vitro</i> ) No. of animals per dose group ( <i>in vivo</i> )	5 doses and negative control Yes  5 animals per group
<b>Observations/Findings</b>	No effects after exposure to single compounds. Signs of toxicity observed after exposure to higher doses of mixture.
<b>Overall opinion</b> (e.g. sufficient numbers of groups investigated, group sizes adequate, observations reproducible, low dose levels used investigated)	Good study; dose regimen makes it difficult to make conclusions on mechanism of interaction. All signs point toward additivity.