Figure S1. Chemical structure of acetochlor, CMEPA and MEA. CMPEA, 2-ethyl-6-methyl-2-chloroacetanilide; MEA, 6-ethyl-o-toluidine.

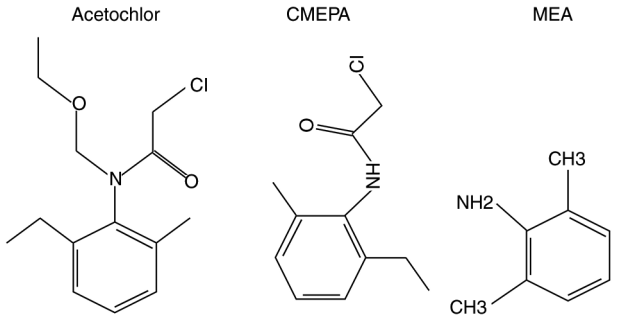

Figure S2. Dose-effect curves of AC, CMEPA and MEA on HepG2 cells and zebrafish embryos. (A) IC_{50} of AC, CMEPA and MEA in HepG2 cells was determined following treatment with each drug at 1.95-500.00 μM (with 2-fold interval) for 72 h. Thereafter, cell viability was measured via MTT assay. Absorbance was measured at 440 nm with a multimode plate reader. (B) Mortality-concentration curves. Zebrafish embryos (20/group) were treated at 48-120 h post-fertilization with each drug at 1.95-500.00 μM (with 2-fold interval) and LC_{50} was calculated. Zebrafish were euthanized (2-step method) by submersion in ice water for immobilization and addition of sodium hypochlorite (6.15%) into the culture system for ≥20 min prior to ensure death. The experiments abided by guidance on the housing and care of zebrafish from American Association for Accreditation of Laboratory Animal Care. AC, acetochlor; CMPEA, 2-ethyl-6-methyl-2-chloroacetanilide; MEA, 6-ethyl-o-toluidine; LC_{50}, median lethal concentration.

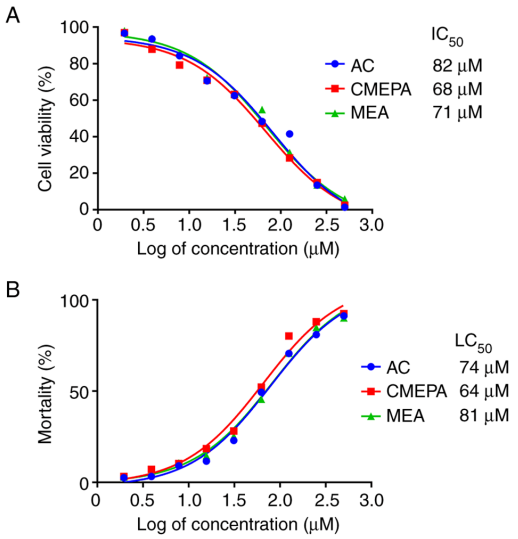

Figure S3. Treatment with AC, CMPEA and MEA promotes activity of Caspase3 and Caspase8 in cells, which is alleviated by co-treatment with NAC. HepG2 cells were exposed to AC, CMEPA and MEA at 10-100 μM for 72 h; control cells were treated with methanol. The cells were collected and activity of Caspase3 and Caspase8 were measured. Exposure to AC, CMEPA, and MEA promoted activity of both Caspase3 and Caspase8 in a dose-dependent manner. However, the pro-apoptosis effects of AC, CMPEA and MEA were alleviated by co-treatment with NAC (5 mM). The data are presented as the mean ± SEM (n=3). *P<0.05, **P<0.01. AC, acetochlor; CMPEA, 2-ethyl-6-methyl-2-chloroacetanilide; MEA, 6-ethyl-o-toluidine; NAC, N-acetylcysteine.