Pesticide Action Network Asia and the Pacific (PAN AP) encourages the reproduction and use of this publication as long as PAN AP is properly acknowledged as the source and provided with Emily Marquez, PhD June 2014

Hazard to children: potential developmental effects, immunotoxic, endocrine disruptor; later in life cancer, male reproductive problems. Risk of exposure via drinking water in areas of high intensity use is a major concern.


Residues: In cord blood, neonate plasma, breast milk, urine, house dust, food, drinking water.1–4

Acute toxicity: Categorized as “slightly toxic” for acute dermal and oral toxicity; categorized as “nontoxic” for acute eye and inhalation toxicity, by US EPA.5 Moderate acute oral toxicity. May cause coma, circulatory collapse, renal failure, and gastric bleeding.8 Reported to have caused acute poisoning of children in Nicaragua.7

Chronic toxicity: In areas of high use, via drinking water exposure: seasonal dietary risk exceeds US EPA’s level of concern at highest exposure levels; uncertainty around the risks of chronic and subchronic exposure to infants. Risks of concern for workers who mix, load, and apply atrazine.5

Neurological: Delayed puberty (neuroendocrine effect) in mammals.8

Cancer: Classified by US EPA as not a likely carcinogen for humans. US EPA Scientific Advisory Panel raised questions regarding risk for ovarian, breast9, and other cancers, i.e., prostate10 and non-Hodgkins’ lymphoma.5,11

Genotoxicity: Evidence of genotoxicity in rats.12,13

Endocrine disruption: Delayed puberty, induces feminization in male vertebrates at low, environmentally relevant doses.14

Reproduction: Reduced male fertility, intrauterine growth retardation, increased risk of early spontaneous miscarriage in humans, increased incidence of birth defects associated with proximity to high levels atrazine in surface water.15–19

Immune: Evidence of immunosuppression in rats and carp.20–22

Environmental effects: Aquatic: moderately toxic to fish, algae, and aquatic invertebrates.6 Terrestrial: Moderately toxic to earthworms, honey bees, and mammals.8

Environmental fate: Water pollutant, banned in 2004 by the European Union due to potential to contaminate groundwater,23 high risk leachability; moderately persistent in soil, low bioaccumulation potential.6
References:


