

Highly Hazardous Pesticides

Methyl parathion

Hazard to Children: acute poisoning, memory, motor skill and behavioural problems, affects endocrine and immune functions; later in life reproductive problems, breast cancer potential



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June 2014

Bans: e.g. EU, Laos, Cambodia, Indonesia, Sri Lanka, Philippines, China, Thailand, Malaysia, Myanmar, South Korea, Vanuatu, Vietnam. Some formulations on PIC list.

Use: organophosphate insecticide.

Residues: cord blood, newborn's blood, breast milk,¹ children's urine; house dust, drinking water, food.

Acute toxicity: WHO Class 1a extremely hazardous neurotoxin; children more sensitive than adults. Symptoms include breathing difficulties, nausea, vomiting, diarrhoea, abdominal cramps, headache, dizziness, blurred vision, sweating, salivation, confusion, slurred speech, tremors, unconsciousness, convulsions, coma, cardiac arrest.² Deaths from oral dermal and inhalation exposures, including occupational,³ and children from contaminated food⁴ and houses.⁵

Chronic: heart abnormalities (rats).⁶

Neurotoxicity: in children: impaired short-term memory and attention, motor skill and behavioural problems including anger, sadness, impulsiveness,

shyness, and difficulty relating to other children.⁵ Adult neuro-psychiatric disorders.³

Cancer: breast cancer risk.⁷

Genotoxicity: mutagenicity in some cell systems.⁸⁻¹⁰

Endocrine disruption: oestrogenic;^{11 12} increased testosterone, decreased luteinizing hormone in testes.¹³

Reproduction: embryotoxicity;¹⁴ retarded growth (birds).¹⁵ Degeneration of placental cells,⁶ endometrial damage,¹⁶ changes in oestrus cycle,⁶ decreased healthy follicles,¹⁷ degenerative changes in ovaries (rats).¹⁸ Damage to male rat reproductive organs;^{19 20} abnormal sperm, decreased sperm count.¹³

Immune: immunotoxic (humans);²¹ allergic dermatitis.³

Environmental effects:
Aquatic: highly toxic.¹⁴
Terrestrial: highly toxic to birds, beneficials,²² bees.¹⁴

Environmental fate: very persistent inside.²³
²⁴ Residues in fog, air, rain³ sediment, surface and ground waters²⁵ and Arctic.²⁶

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