

LETHAL DOSES

Common name	Toxin	Lethal doses	Description	Toxic response
aspirin	acetylsalicylic acid, $C_9H_8O_4$	LD ₅₀ 200 mg/kg (rat, oral)	odorless white crystal	gastric distress, confusion, psychosis, stupor, tinnitus, hyperventilation
table salt	sodium chloride NaCl	LD ₅₀ 3 g/kg (rat, oral) 12,357 mg/kg (human, oral)	white cubic crystal	eye irritant, elevated blood pressure
castor beans	ricin protein molecules, molecular mass 63,000 amu	LD ₅₀ 30 mcg/kg (human, oral) LD ₅₀ 3.0 mcg/kg (human intravenous)	small, shiny black seeds with white spots	vomiting, diarrhea, internal bleeding, kidney and liver failure; death within minutes if injected
bleach (fumes)	chlorine Cl ₂	LD ₅₀ 850 mg/kg (rat, oral) *LC ₅₀ 1,300 mg/m ³	greenish gas or amber liquid, pungent odor	corrosive to eyes, skin, respiratory tract; nausea, vomiting, pulmonary edema
lorchel mushroom	gyromitrin C ₄ H ₈ N ₂ O	LD ₅₀ 200 mg/kg (rat, oral)	reddish mushroom	nausea, vomiting, severe liver damage, coma, convulsions
arsenic	arsenic (III) oxide As ₂ O ₃	LD ₅₀ 15 mg/kg (rat, oral)	gray, metallic crystals	acute—irritates eyes, skin, respiratory tract, nausea chronic—convulsions, tissue lesions, hemorrhage, kidney impairment
sugar	glucose C ₆ H ₁₂ O ₆	LD ₅₀ 30 g/kg (rat, oral)	sweet white powder	lethargy, gastrointestinal distress; if diabetic—heart disease, blindness, nerve damage, kidney damage
iron tablets	iron sulfate FeSO ₄	~5 adult tablets for a 3-year-old	grayish white powder	nausea, vomiting, diarrhea, black stool, liver damage, coma
lead	lead Pb	lowest published dose 450 mg/kg (human, oral)	bluish or silvery solid	acute—headache, joint pain chronic—anemia, kidney disease, birth defects
snake venom	α-bungarotoxin C ₃₃₈ H ₅₂₉ N ₉₇ O ₁₀₅ S ₁₁	LD ₅₀ 25.0 mcg/kg (rat, intramuscular)	large protein molecule	paralysis, suffocation, loss of consciousness, seizures, hemorrhaging into tissues
soft drink	caffeine C ₈ H ₁₀ N ₄ O ₂	LD ₅₀ 140 mg/kg (dog, oral)	odorless white crystals	renal failure, nausea, psychosis, hemorrhage, rapid pulse, convulsions
alcohol	ethanol C ₂ H ₆ O	LD ₅₀ 7,060 mg/kg (rat, oral)	colorless liquid, pleasant odor	nausea, headache, vomiting, seizure, dizziness, loss of consciousness
vitamin A	retinol C ₂₀ H ₃₀ O	LD ₅₀ 2,000 mg/kg (rat, oral)	yellow crystals, orange solid	convulsions, unconsciousness, reproductive toxin

*LC₅₀ refers to the lethal concentration of an inhaled substance.