

International Hazard Datasheets on Occupation




Pest Exterminator

What is a Hazard Datasheet on Occupation?

This datasheet is one of the International Datasheets on Occupations. It is intended for those professionally concerned with health and safety at work: occupational physicians and nurses, safety engineers, hygienists, education and Information specialists, inspectors, employers' representatives, workers' representatives, safety officers and other competent persons.

This datasheet lists, in a standard format, different hazards to which pest exterminators may be exposed in the course of their normal work. This datasheet is a source of information rather than advice. With the knowledge of what causes injuries and diseases, is easier to design and implement suitable measures towards prevention.

This datasheet consists of four pages:

- Page 1: Information on the most relevant hazards related to the occupation.
- Page 2: A more detailed and systematized presentation on the **different hazards** related to the job with indicators for preventive measures (marked  and explained on the third page).
- Page 3: Suggestions for **preventive measures** for selected hazards.
- Page 4: **Specialized information**, relevant primarily to occupational safety and health professionals and including information such as a brief job description, a list of tasks, notes and references.


Who is a pest exterminator?



A worker who exterminates pests that infest buildings and surrounding areas, using pesticides, traps and other means.



What is dangerous about this job?



- Chemicals (pesticides) used by Pest Exterminators are usually toxic to man. They may cause acute or chronic poisoning, burns, skin, eyes, throat and other disorders, and be harmful in other ways.
- Some pesticides are flammable, and their careless handling and storage may cause fires.
- Pest Exterminators often work in uncomfortable postures and handle heavy loads, which may cause traumas and, in the course of time, back, hands and arms pains.

Hazards related to this job

Specific preventive measures can be seen by clicking on the respective  in the third column of the table.

Accident hazards		
	<ul style="list-style-type: none">• Falls from elevated platforms, roofs and stairs, esp. while carrying containers and other heavy loads	
	<ul style="list-style-type: none">• Slips, trips, falls and bumps (on slippery surfaces and at obstacles, esp. while wearing protective mask limiting the field of vision)• Falls of heavy loads, esp. containers, on workers' feet	
	<ul style="list-style-type: none">• Risk of getting hernia as a result of overstrenuous movements when lifting and loading heavy loads	

	<ul style="list-style-type: none"> Increased risk of road accidents due to lengthy periods of driving heavily loaded vehicles, incl. towing trailers and mechanical spraying equipment, on field roads Electric shocks caused by contact with defective electromechanical equipment 	
	<ul style="list-style-type: none"> Acute poisoning while applying pesticides (esp. as a result of inhaling aerosols while not wearing protective mask; could be fatal), or as a result of spills and fires during transportation and storage of pesticides 	2
	<ul style="list-style-type: none"> Contamination of exterminators during the mixing of concentrated hazardous pesticides 	
	<ul style="list-style-type: none"> Skin contact or ingestion of pesticides due to contamination, splashing, or spills, esp. during preparation, mixing and filling operations 	3 4
	<ul style="list-style-type: none"> Accidental inhalation of pesticide spray (caused by a sudden change of wind, or by a poorly selected and maintained protective mask, etc.) 	2
	<ul style="list-style-type: none"> Risk of accidental swallowing of a liquid pesticide mistakenly thought to be water, or of pesticide-polluted irrigation water 	5
	<ul style="list-style-type: none"> Bursting of overpressurized spraying vessels, resulting in pesticide splashes capable of hitting the operator 	
	<ul style="list-style-type: none"> Acute intoxication as a result of release into the atmosphere of hazardous compounds (e.g., HCN, SO₂, NO_x) during accidental (fires or explosions) or intentional (owing to poor judgment) burning of pesticides or pesticide containers 	2
	<ul style="list-style-type: none"> Stabs and cuts caused by sharp objects Bites and stings by rodents, insects, etc. Fire hazard due to careless storage of flammable pesticides 	
Physical hazards	<ul style="list-style-type: none"> Exposure to direct and reflected ultraviolet (solar) radiation while working outdoors, possibly leading to erythema, skin cancer, cataracts and photokeratitis Exposure to harsh climatic conditions, e.g., heat (resulting in effects ranging from temperature discomfort to heat stroke), high humidity, cold, etc. Exposure to whole-body vibrations caused by inadequate vehicle suspension, uncomfortable seat, etc. 	
		
Chemical hazards	<ul style="list-style-type: none"> Severe chronic intoxication due to exposure to pesticides (may result in disease or death) 	2 4
	<ul style="list-style-type: none"> Various skin effects (itching, erythema, dermatoses, blistering, irritation, sensitization, photosensitization, etc.), as a result of exposure to vapors, spray, and gaseous forms of pesticides, esp. through direct skin contact 	3
	<ul style="list-style-type: none"> Chloracne and porphyria cutanea tarda, due to contact with chlorinated pesticides 	3
	<ul style="list-style-type: none"> Eye irritation, cataracts, corneal and conjunctival injuries, esp. in pesticide sprayers 	6
	<ul style="list-style-type: none"> Mouth and throat irritation, burns and ulcers of the mouth in pesticide sprayers Various pulmonary diseases, including lung edema, pneumonitis, asthmatic reactions, alveolitis, pneumoconiosis (from pesticide dusting), etc. 	2

	<ul style="list-style-type: none"> • Various gastro-intestinal effects, including abdominal pains, cramps, diarrhea, nausea, vertigo, giddiness, headaches, etc. • Nervous system disorders, including neurotoxicity, postural instability, neuropathy, neuro-behavioral effects, insomnia, etc. • Effects on blood and circulatory system, caused by exposure to pesticides, esp. to chlorinated hydrocarbons and organophosphates • Musculoskeletal and soft tissue problems and other systemic effects • Carcinogenic effects, including cancer of bladder, brain, liver, lung, prostate, gastro- intestinal tract, respiratory system, testicles, malignant lymphomas, leukemia, multiple myeloma, and other forms of carcinogenic and mutagenic effects 	7
Biological hazards 	<ul style="list-style-type: none"> • Being infected by a zoonotic disease transmitted by rodents, fleas, mosquitoes, or other insects during extermination work 	8
Ergonomic, psychosocial and organizational factors 	<ul style="list-style-type: none"> • Back pains in hand-spray workers 	
	<ul style="list-style-type: none"> • Musculoskeletal injuries caused by physical overexertion and awkward posture while carrying and otherwise handling containers and heavy pieces of equipment 	9
	<ul style="list-style-type: none"> • Tiredness and general ill feeling • Psychological stress resulting from the fears of potential overexposure to pesticides and of failing the compulsory periodical health check-ups 	

Preventive measures

- 1 Wear safety shoes with non-skid soles
- 2 Wear respiratory protection in work with pesticides or other toxic chemicals
- 3 Protect hands with chemical-resistant gloves; if impractical, use a barrier cream
- 4 Do NOT eat or smoke during work with pesticides, acids, poisons, or other toxic chemicals
- 5 Where tap water is not available, drink only bottled water, water supplied in containers marked "drinking water", or bottled or canned soft drinks. Store liquid pesticides in specially shaped bottles used exclusively for this purpose
- 6 Wear appropriate eye protection; consult a safety supervisor or a supplier
- 7 Seek advice of occupational physician (e.g., to take blood tests, etc.)
- 8 Maintain a high level of personal hygiene. At the end of work, shower and change clothes. Do not take work-soiled clothing home
- 9 Learn and use safe lifting and moving techniques for heavy or awkward loads; use mechanical aids to assist in lifting

Specialized information

Synonyms Applicator, pesticides; exterminator; exterminator, vermin and rodent; fumigator and sterilizer; pest-control worker; sprayer, pesticides; sprayer / duster, pesticides; sprayman

Definitions and/or description Sprays chemical solutions or toxic gases and sets mechanical traps to kill pests that infest buildings and surrounding areas: Fumigates rooms and buildings, using toxic gases. Sprays chemical solutions or dusts powders in rooms and work areas. Places poisonous paste or bait and mechanical traps where pests are present. May clean areas that harbor pests, using rakes, brooms, shovels, and mops, preparatory to fumigating. May be required to hold state license. May be designated according to type of pest eliminated as Rodent Exterminator (business ser.) ["Exterminator (business ser.)", DOT]



Related and specific occupations Agricultural chemicals inspector; autoclave operator; exterminator helper; hand-spray operator; herbicide worker/handler; insecticide mixer (chemical); insect-sprayer, mobile unit; mosquito sprayer; pasteurizer; pesticide-control inspector; pesticide maker; sanitarian-exterminator; sprayer, insecticide; sprayer hand (agriculture); sterilizer-operator (beverages; -/dairy products; -/feathers; -/medical services; etc.); supervisor, extermination; supervisor, insect and disease inspection; termite-treater; weed-inspector [DOT]; agricultural worker exposed to pesticide residues (gardener, nursery or greenhouse worker); field fumigator; pesticide ground-applicator; pesticide mixer and/or loader; pesticide store worker; flagger (in aerial operations), etc.

Tasks Analyzing; applying; baiting; blending; boring; burning (weeds); calculating; calling; carrying; checking; clamping; cleaning; controlling; cutting; destroying; detecting; digging; discharging (gases); distributing; drilling; driving; dusting; eliminating; evaluating; examining; exterminating; flushing; fogging; formulating (pesticide mixtures); fumigating; gassing; gauging; hammering; handling; identifying; igniting; impregnating (soil); injecting; inserting; inspecting; investigating; isolating; killing; loading and unloading; locating; measuring; mixing; modifying; observing; padlocking; poisoning; pouring; preparing; preventing; pumping; quarantining; raising; recording; releasing; removing; replacing; reporting; sampling; sawing; sealing; searching; securing; setting; spraying; spreading; sterilizing; surveying; taping; tending (machines); transferring; transporting; trapping; treating; weighing; wrapping

Primary equipment used All-terrain motor vehicles; brooms; containers for mixing, blending, and formulating; cutters (manual and mechanized); dusters; fencing and warning accessories; foggers; fumigation equipment; gas containers and bottles; graduated flasks; hammers; ladders; measuring and weighing equipment; mops; personal protective equipment; pesticide containers; piping and tubing appliances; pumps; rakes; saws; sealing appliances; shovels; sprayers (manual and mechanized); tractors and mini-tractors; traps (for birds, insects, and rodents); UV lamps (for insect trapping); vaporizers; weed/shrub cutters

Workplaces where the occupation is common Agriculture, sanitation, park and similar authorities (governmental, municipal, local, etc.); agricultural aviation services; farming (all types of establishments); gardening (incl. greenhouses, nurseries, etc.); rail and road transport; private extermination, crop-dusting and fumigation services (hospitals, schools, food establishments, etc.)

References Guide to Health and Hygiene in Agricultural Work, ILO, 1979, Geneva, 309 p.



Encyclopaedia of Occupational Health and Safety, 3rd Ed., ILO, Geneva, 1983, Vol. 2, p. 1614 - 1646.

Encyclopaedia of Occupational Health and Safety, 4th Ed., ILO, Geneva, 1998, 4 Vols., various chapters.

Adams, R.M.: Occupational Skin Diseases. Saunders Co., Philadelphia, 1990, p. 647 - 649.
