

International Hazard Datasheets on Occupation



Sanitarian

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 sanitarians 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, it 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 as numbered shields 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 sanitarian?

A worker who helps and advises educational, industrial, communal, public, private and other organizations, institutions and enterprises in environmental health issues.

What is dangerous about this job?

- Sanitarians are often engaged in visits, surveys and inspections in the field, where they may encounter various health and safety hazards present in the visited place:

---- Toxic gases, fumes, contaminated water, sewage, etc.






---- Risk of infection from sick people or animals, biological waste, etc.

---- Risk of falls and wounds while inspecting unfamiliar and "tough" places.

---- Risk of bites, stings, etc., from parasites, rodents, insects, etc.

- Sanitarians sometimes work in a laboratory, where they may be exposed to toxic chemicals and other laboratory hazards.
- While performing their inspection functions, Sanitarians may come into conflict with the local management or personnel, and be threatened or assaulted.

Hazards related to this job

Accident hazards 	<ul style="list-style-type: none"> Slips, trips and falls from ladders, stairs, elevated platforms etc., during field visits of plants and throughout inspection operations Slips, trips and falls on the level 	1
	<ul style="list-style-type: none"> Falls into open pits, sumps, and manholes while inspecting water and sewage systems Stepping on debris, broken glass, sharp stones, etc., during field-inspection trips Electrical shock resulting from work with mechanized and electrical field equipment 	
	<ul style="list-style-type: none"> Acute poisoning by gases (e.g., sulfur dioxide and hydrogen sulfide) during inspection and cleaning of sewage systems 	2
	<ul style="list-style-type: none"> Acute poisoning resulting from operation and handling of drinking water and swimming pools chlorination and bromination equipment and containers 	
	<ul style="list-style-type: none"> Acute poisoning caused by use of various pesticides in pest control/ extermination operations 	3
	<ul style="list-style-type: none"> Fires, explosions and toxic fumes caused by flammable and explosive substances (e.g., solvents, gasoline, etc.) Burns resulting from garbage burning operations and from operating incinerators Relatively high risk of being involved in road accidents, as a result of extensive and frequent driving on badly kept roads and off-roads 	
Physical hazards 	<ul style="list-style-type: none"> Exposure to excessive noise (relevant for sanitarians engaged in industrial hygiene, heating and ventilation systems and in inspection of "noisy" industries) 	4
	<ul style="list-style-type: none"> Exposure to ionizing radiation (relevant for sanitarians engaged in control and supervision of radioisotope usage, X-ray equipment and radioactive wastes) 	5
	<ul style="list-style-type: none"> Exposure to non-ionizing radiation (e.g., in water sterilization by UV) 	6
	<ul style="list-style-type: none"> Exposure to harsh climatic conditions (excessive heat or cold) while working in the field 	
Chemical hazards 	<ul style="list-style-type: none"> Chronic poisoning due to exposure to toxic materials, such as pesticides (insecticides, herbicides, rodenticides, fungicides, algicides, nematocides, etc.), their vapours and aerosols in extermination operations or disposal of toxic pesticide residues 	
	<ul style="list-style-type: none"> Contact with strong oxidants, especially chlorine compounds used for disinfection of drinking water and swimming pools 	7
	<ul style="list-style-type: none"> Inhalation of toxic gases present in sewage systems or in industrial plants with inadequate ventilation systems 	3
	<ul style="list-style-type: none"> Dermatitis and eczemas resulting from contact with various oils and solvents used for pest control or garbage burning, or with other chemicals commonly used in sanitation 	7
Biological hazards 	<ul style="list-style-type: none"> Exposure to various microorganisms while working with liquid or solid wastes Bites, scratches, and stings by various insects (flies, fleas, ticks, mites, mosquitoes, bees, wasps, etc.), snakes, scorpions, rodents, etc., during field and laboratory work Risk of contracting infectious diseases while working in hospitals 	
Ergonomic, psychosocial and organizational factors 	<ul style="list-style-type: none"> Acute musculoskeletal injuries and cumulative trauma disorders caused by physical overexertion and awkward posture while carrying and otherwise handling containers and heavy pieces of equipment or by work in confined or awkward spaces Back pains (esp. in hand-spray workers) Psychological stress resulting from the fears of potential or actual overexposure to pesticides and of failing the compulsory periodical health check-ups 	
	<ul style="list-style-type: none"> Physical and/or verbal assault during sanitary inspections of homes, businesses, etc. 	8
	<ul style="list-style-type: none"> Attempts of those subjected to inspection to file unwarranted complaints which result in psychological stress, nervousness, etc. 	

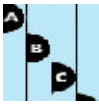
Preventive measures

- 1** Wear safety shoes with non-skid soles
 - 2** Observe all recommended safety precautions for entering a confined space, incl. respiratory protection
 - 3** When spraying pesticides, or coming into contact with hazardous gases, vapors, or dusts, wear appropriate respiratory protection to avoid inhalation of aerosols and dust
 - 4** Wear hearing protection appropriate for the noise levels and type of noise - consult the supplier or an expert
 - 5** Check radiation level before approaching radiation sources; wear a personal radiation dosimeter. Do NOT exceed maximum allowed annual (or other, shorter-time) radiation dose
 - 6** Use safety glasses with UV-shielded lenses when potential exposure to UV exists
 - 7** Protect hands with chemical-resistant gloves; if impractical, use a barrier cream
 - 8** Train employees how to recognize and respond to threat of violence; provide alarm or other means for summoning help, or escort if needed
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Specialized information

Synonyms Sanitary inspector; sanitation inspector; sanitation supervisor; environmental technician; pollution-control technician [DOT]. Also: public-health inspector; environmental-health inspector; environmental-quality inspector; environmental technician/engineering aid; registered/certified sanitarian

Definitions and/or description Plans, develops, and executes environmental health program; organizes and conducts training program in environmental health practices for schools and other groups; determines and sets health and sanitation standards and enforces regulations concerned with food processing and serving, collection and disposal of solid wastes, sewage treatment and disposal, plumbing, vector control, recreational areas, hospitals and other institutions, noise, ventilation, air pollution, radiation, and other areas; confers with government, community, industrial, civil defense, and private organizations to interpret and promote environmental health programs; collaborates with other health personnel in epidemiological investigations and control. Advises civic and other officials in development of environmental health laws and regulations [DOT]



Related and specific occupations Sanitary engineer; public-health engineer; environmental engineer; food and drug inspector; exterminator; mosquito sprayer [DOT]

Tasks Analyzing; assembling & installing; burning (of garbage, etc.); calculating; catching (insects, rodents, etc.); checking; conducting (training programs); constructing; controlling; designing; determining (quantities, treatment techniques, etc.); developing; digging; disinfecting; disposing; disseminating (information); distributing (information or training material); driving; educating; enforcing; eradicating (pests); estimating (quantities); evaluating; examining; executing; exterminating; guiding; handling; improving (control techniques, etc.); inspecting; investigating; measuring; operating; planning; preventing; questioning; reporting; sampling; sanitizing; spraying; supervising; surveying; testing; transferring; warning; witnessing

Primary equipment used Air pollution sampling equipment (including dust and gas samplers); all terrain motor vehicle; candlelight/lux meter; comparator (for colorimetric water testing, and for residual-chlorine tests); computer; fumigation and spraying equipment; measuring and weighing equipment; personal protective equipment; pesticide containers; pH meter; piping and tubing appliances; pumps; sampling bottles; sound-level meter; traps; thermometers; water and sewage samplers; water testing kits; weed and shrub cutters, etc.

Workplaces where the occupation is common Governmental offices (esp. ministries of health and environment); sanitation and environmental departments of local municipalities; privately owned sanitation organizations; sanitation training-centers; big factories, industrial complexes, hospitals; etc.

Notes Information on the hazards to which Sanitarians may be exposed while performing laboratory tests, may found in the Hazard Datasheet addressing the Laboratory Worker.



References Freedman, B.: Sanitarian's Handbook, 4th Ed., Peerless Publ., New Orleans, 1977.



Tchobanoglous, G., and Burton, F.L.: Metcalf & Eddy Wastewater Engineering - Treatment, Disposal, and Reuse, 3rd Ed., McGraw-Hill Int., 1991.

Last, J.M, and Wallace, R.B. (Ed.): Maxcy - Rosenau - Last Public Health and Preventive Medicine, 13th Ed., Prentice Hall Int., 1992.
