

International Hazard Datasheets on Occupation



Ship Cook, Merchant Marine

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 ship cook, merchant marines 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 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.


What is dangerous about this job?

- Ship Cooks work aboard ships and therefore share many hazards common to all seafarers: falling outboard and drowning, slipping, tripping and falling on deck, from gangways or ladders at sea or in port, constant lack of stable ground under feet, long separation from families and friends, lower sides of port life, etc.
- While working in the galley that is often cramped and is rolling and pitching with the ship, Ship Cooks may suffer from burns and scalds, may have their fingers and hands cut, stabbed or even amputated by knives, other sharp tools, and galley machines
- The job of a Ship Cook is physically difficult: it involves repetitive strenuous movements, standing for long periods of time, moving heavy loads - while trying to keep balance on a rolling and pitching galley floor. All that may result in pains and other problems in hands, arms, legs, low back, and other body parts
- Ship Cooks deal with food and water that may get spoiled. This may endanger the health, working ability, and even lives, of cooks themselves and of other crewmembers

Hazards related to this job

Accident hazards 	<ul style="list-style-type: none"> Slips, trips and falls on wet and slippery floors while moving about the galley (esp. while carrying pots, pans, etc.), aggravated by ship's sudden evolutions, rolling and pitching, and also from unstable work-surfaces 	1
	<ul style="list-style-type: none"> Fall from ship into water from deck and ship structures while off-duty 	1
	<ul style="list-style-type: none"> Fall from gangways or ladders, when climbing into ship, esp. when climbing to the ship from a boat 	
	<ul style="list-style-type: none"> Struck by unsecured objects falling from galley shelves and ovens during ship's sudden maneuvers 	2
	<ul style="list-style-type: none"> Cuts and stabs caused by knives and other sharp tools 	3
	<ul style="list-style-type: none"> Finger and hand injuries, incl. amputations, caused by kitchen machinery: cutters, slicers, saws, mincers, etc. 	4
	<ul style="list-style-type: none"> Eye injury caused by flying particles of bones, etc 	
	<ul style="list-style-type: none"> Burns and scalds caused by contact with hot surfaces and utensils (incl. accidental contact while trying to maintain balance), by splashed hot cooking oil, fat, soup, water or other hot substance, by hot vapors, or by burner flashback, aggravated by ship's sudden maneuvers 	
	<ul style="list-style-type: none"> Electric shock caused by defective electrical equipment and installation 	5
	<ul style="list-style-type: none"> Fire hazard caused by heat sources: ovens, grills, etc. 	
	<ul style="list-style-type: none"> Fire and explosion hazard caused by presence of fuels and other flammable materials in the galley 	
	<ul style="list-style-type: none"> Risk of being trapped inside walk-in refrigerators and freezers 	
	<ul style="list-style-type: none"> Bites and stings by pest (e.g., rodents) 	
	<ul style="list-style-type: none"> Involvement in work accidents, as a result of verbal or written misunderstanding and lack of communication between workers not speaking the same language 	
Physical hazards 	<ul style="list-style-type: none"> Exposure to microwave radiation leaking from defective microwave ovens 	6
	<ul style="list-style-type: none"> Exposure to thermal radiation from ovens and other heat sources 	
	<ul style="list-style-type: none"> Vibration (incessant, high frequency, small amplitude) of the whole body caused by ship engines and transmitted by deck surfaces and other ship structures 	
	<ul style="list-style-type: none"> Vibration-like motions (low frequency, large amplitude) of the whole body caused by ship rolling and pitching, esp. in high seas, possibly resulting in vestibular disturbances and/or sea-sickness 	
	<ul style="list-style-type: none"> Exposure to excessive incessant noise caused by ship engines 	
	<ul style="list-style-type: none"> Exposure to nuisance noise caused by kitchen and cooking machinery, utensils, etc. 	
	<ul style="list-style-type: none"> Exposure to high temperatures, too high levels of relative humidity and to draughts, typical for a galley environment 	7
Chemical hazards 	<ul style="list-style-type: none"> Exposure to cooking fumes containing hazardous compounds (PAH), in particular during grilling 	
	<ul style="list-style-type: none"> Exposure to spices and other food components which may cause allergic reactions in sensitive persons 	
	<ul style="list-style-type: none"> Exposure to carbon monoxide, combustion products, smoke and fuel vapors in a galley equipped with fueled ovens 	8
	<ul style="list-style-type: none"> Exposure to detergents and cleaning compounds used for dishwashing and kitchen clean up, possibly causing skin rash and dermatoses 	
	<ul style="list-style-type: none"> Exposure to toxic substances released sometimes when mixing different chemicals 	
	<ul style="list-style-type: none"> Exposure to pesticides used to control insects, rodents, etc. 	9
Biological hazards 	<ul style="list-style-type: none"> Risk of poisoning while tasting food ingredients and meals at various stages of cooking 	
	<ul style="list-style-type: none"> Exposure to raw vegetable and animal products which may cause allergic reactions 	
	<ul style="list-style-type: none"> Risk of communicable diseases transmitted by pests, vermin, rodents, insects and other animals that may infest the ship, esp. the galley and adjacent quarters 	
	<ul style="list-style-type: none"> Zoonotic diseases (e.g., brucellosis, tularemia, etc.) caused by handling of contaminated meat 	
	<ul style="list-style-type: none"> Fungal diseases, in particular candidiasis caused by subcutaneous infections 	
<ul style="list-style-type: none"> Risk of communicable diseases transmitted by crewmembers or contracted ashore: tuberculosis, sexually transmitted diseases (incl. AIDS, syphilis, etc.), hepatitis A and B, respiratory infections, etc. 		

Hazards related to this job (continued)

Ergonomic, psychosocial and organizational factors 	<ul style="list-style-type: none"> Cumulative trauma disorders of upper extremities, caused by continuous repetitive (often strenuous) movements of arms, hands or wrists, while preparing food ingredients (esp. cutting, chopping, etc.) 	
	<ul style="list-style-type: none"> Chronic fatigue and pains in lower back and legs, caused by prolonged standing, esp. during ship's sudden evolutions, rolling and pitching 	
	<ul style="list-style-type: none"> Back problems caused by handling of heavy loads (moving large pots, etc.) 	10
	<ul style="list-style-type: none"> Exposure to certain spices may cause specific positive or negative sensitivity to their odors, and/or addiction or distaste 	
	<ul style="list-style-type: none"> Various factors of physical and psychological discomfort caused by crowded and unstable living environment aboard ship, incl. lack of privacy, confined quarters, inadequate (by the shore standards) amenities, etc. 	
	<ul style="list-style-type: none"> Psychological stress and personal problems caused by specific aspects of seaman's work, such as: continuous exposure to seafaring dangers; prolonged separation from family and from a stable social and cultural environment, etc. 	
	<ul style="list-style-type: none"> Problems of interpersonal relations (sometimes resulting in violence) with other crewmembers (esp. those unsatisfied by food quality), aggravated by such specific factors as: strict discipline aboard ship; inability to avoid undesirable contacts; language and cultural differences among multinational crews 	

Preventive measures

- 1** Wear safety shoes with non-slip soles
- 2** Wear safety helmet
- 3** Wear steel-mesh protective gloves
- 4** Install machinery guards to prevent amputations
- 5** Check electrical equipment for safety before beginning work. Call a qualified electricity technician to examine suspect equipment
- 6** Check microwave ovens for radiation leakage, and repair if needed
- 7** Install effective exhaust ventilation and air conditioning to prevent air contamination and heat stress; use odor neutralizers if appropriate
- 8** Adjust burners for clean burning, to reduce CO formation; install monitors to sound an alarm if CO level exceeds a hazard limit
- 9** Arrange periodic visits by professional pest exterminator, to control pest population, and special visits in the case of heavy infestation
- 10** Learn and use safe lifting and moving techniques for heavy or awkward loads; use mechanical aids to assist in lifting

Specialized information

Synonyms Cook, boat; cook, mess

Definitions and/or description Cooks and serves meals to crew aboard merchant ship: Cleans, cuts, and cooks meat, fish, and poultry. Serves food to crewmembers. Washes dishes and cleans galley and galley equipment. Requisitions supplies. Compiles cost records of food used [acc. to DOT, Cook, mess (water trans.)]



Related and specific occupations Boatswain; cook, chief; galley helper; kitchen-help; mate, ship; purser; seaman

Tasks Adding; baking; blending; boiling; brewing; catering; chopping; churning; compiling (records); cooking; cooling; contacting (customers); controlling (heat etc.); curing; cutting; decorating; defreezing; diluting; dumping (trash); flavoring; frying; glazing; grinding; heating; keeping (on heat, etc.); mashing; measuring; mincing; mixing; observing; ordering (supplies); pickling; planning (menu); portioning; preparing; purchasing; requisitioning (supplies); rinsing; roasting; rolling; sawing (meat, fish); seasoning; serving; shaping; slicing; spicing; spreading; squeezing; steaming; stewing; stirring; switching on/off; tasting; washing; weighing; wrapping

Primary equipment used Beverage dispensing machine; boiler; bowls; brushes; can openers (manual or electrical); coffee machine; containers; cutters; cutting knives; dishes; dish-washing machine; food processor; forks; freezer; fryers; garbage grinder; glassware; grills; grinders; jars; meat and fish saws; mincers; mixers; ovens (electrical, gas, microwave or others); pans; pots; refrigerator; rinsing sink; roller; scales; shaper; slicer; spatula; spoons; steam kettle; trays; trolleys; urns for hot liquids; waste disposers; water heater; water tank

Workplaces where the occupation is common Merchant ships

References Encyclopaedia of Occupational Health and Safety, 4th Ed., ILO, Geneva, 1998, Vol.3, p. 98.2 - 98.5, 102.39 - 102.44.



Encyclopaedia of Occupational Health and Safety, 3rd Ed., ILO, Geneva, 1984, Vol.2, p. 1327 - 1332.

Kitchen Machines. Data Sheet 545 Rev.93, National Safety Council, USA, 1993.

Health and Safety in Kitchens and Food Preparation Areas. Booklet HS (G) 55, HSE (UK), London, 1991.

Personal Safety on Ships. Canadian Coast Guard, Ottawa, 1984 [CISDOC 85-1729].
