

International Hazard Datasheets on Occupation



Riveter

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 riveters 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  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 riveter?

A worker who joins together structural members, fixtures, parts of machines, or other items, by means of rivets.

What is dangerous about this job?

- Riveters use vibrating tools, and the effect of vibration on their body (hands, fingers, etc.) may be seriously harmful.
- The Riveters' work is very noisy, which may badly affect their hearing and general health.
- Riveters may suffer eye injuries caused by flying pieces of metal.
- The Riveters' work is usually physically hard and involves handling heavy loads, uncomfortable postures and repetitive movements. This may cause traumas (including falls), back, arms and hands 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 	• Injuries as a result of carrying or lifting of dies or riveting equipment	
	• Falls from ladders or scaffolding	
	• Burns on the skin as a result from hot rivets	
	• Eye injuries as a result from pieces of metal flying in the air from drilling of dies and from flying chips due to riveting operation	

	Hand and finger injuries as a result of cuts and/or smashing of fingers in between dies	
Physical hazards 	Exposure to high levels of noise during riveting process	3
	Exposure to excessive heat due to hot rivets	4
	Exposure to excessive whole-body vibration from pneumatic riveting equipment	
Chemical hazards 	Potential exposure to metal fumes from hot rivets	
Biological hazards 	No specific hazards	
Ergonomic, psychosocial and organizational factors 	Back pain and other musculoskeletal problems as a result of overexertion and wrong postures due to lifting and carrying of equipment, bending, kneeling, pushing, and repetitive hand movements, etc.	5
	Segmental or hand-arm vibration leading to Raynaud's syndrome or vibration white finger, carpal tunnel syndrome, peripheral nerve damage, or debilitating joint injuries	6

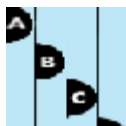
Preventive measures

- 1 Inspect ladder before climbing. Never climb on a shaky ladder or a ladder with slippery rungs
- 2 Wear appropriate eye protection; consult a safety supervisor or a supplier
- 3 Wear hearing protection appropriate for the noise levels and type of noise - consult the supplier or an expert
- 4 Install air conditioning in premises to prevent heat stress and other adverse effects of heat
- 5 Learn and use safe lifting and moving techniques for heavy or awkward loads; use mechanical aids to assist in lifting
- 6 Use tools which reduce the vibration strain by proper design of the percussion mechanism. Use tools with vibration-absorbing handles

Specialized information

Synonyms Pneumatic tool worker (any industry); air hammer operator.

Definitions and/or description Rivets structural members, assembles parts of aircraft, missiles, space vehicles, and railroad cars using portable riveting, dimpling and operation sheets. Removes temporary bolts or fasteners and inserts rivets in predrilled holes. Places drive head of rivet gun against rivet shank and pulls trigger to activate hammer that spreads rivet or spreads rivet using rivet set and hammer. Using portable



rivet squeezer places two dies over head and shank of rivet and presses trigger to activate dies that flatten shank of rivet. Drills and reams rivet holes and drills out defective rivets. Forms dimples around rivet holes using portable dimpling gun or stationary dimpling machine. May align and assemble fixtures, pins, clamps, and fasteners.

Related and specific occupations Riveter (aircraft-aerospace; locomotive and car building and repair); riveter (boot and shoe); riveter (light fixture); riveter, automobile brakes (automobile service); riveter, hand (any industry); riveter hand (garment); riveter, helper (any industry); riveter, hydraulic; riveter, pneumatic; riveter, portable machine; riveter, portable pinch.

Tasks Assembling; aligns (holes); bending; carrying; catches (rivets); clamping; cleaning; climbing; cutting; dimpling; drilling; filling (hopper); hammering; holding; installing; kneeling; lifting; operating (equipment); positioning; pressing; pulling; pushing; reaming; removing (rivets); repairing; riveting; sliding; turning; wrenching

Primary equipment used Clamps; dimpling machine (portable or stationary); drill; files; hammer; reamer; rivet gun (pneumatic, hydraulic, or electric); ruler; squeezer; wrenches.

Workplaces where the occupation is common Machine-building, aerospace, automotive, garment, footwear, and other manufacturing industries; repair and servicing workshops, etc.

References Encyclopaedia of Occupational Health and Safety, 4th Ed., ILO, Geneva, 1998, Vol.2, p. 50.7 - 50-12.



Air-powered Hand Tools. Data Sheet I-392-78, Revised 1978, National Safety Council (USA).

Safety Requirements for Riveting, Scaling, and Tinnerns' Setting Hammers. ANSI B173.8-1982, American National Standards Institute.