

# International Hazard Datasheets on Occupation



## Glazier

### 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 glaziers 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.

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### Who is a glazier?






A worker who installs glass in windows, doors, showcases, frames, or on walls, ceilings, tabletops, etc. Before installation, the Glazier may cut glass, tint it, decorate, etc.

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### What is dangerous about this job?

- Glaziers are often injured by sharp edges of glass sheets, glass splinters, by sharp tools, etc.
- Glaziers may fall from the height while setting glass in windows, on walls and ceilings.
- Glaziers may be severely injured by collapsing heavy glass sheets.
- Glaziers sometimes use strong chemicals, and their fumes may have adverse health effects.
- Glass sheets are bulky and heavy, and handling them may put Glaziers at risk of injuries, back, arms and hands pains, etc.

## Hazards related to this job

<b>Accident hazards</b> 	<ul style="list-style-type: none"> <li>Falls from the height while setting glass in windows, on walls and ceilings, etc., resulting in heavy traumas and sometimes death</li> </ul>	1
	<ul style="list-style-type: none"> <li>Slips, trips and falls on the level, esp. on wet, slippery and greasy floors, while moving glass sheets</li> </ul>	2
	<ul style="list-style-type: none"> <li>Injuries caused by falling objects during routine glass installation work</li> <li>Crushing under the weight of collapsed heavy glass sheet or pile of glass sheets</li> </ul>	
	<ul style="list-style-type: none"> <li>Injuries, esp. severe cuts of hands and crushing of toes, caused by sharp edges of glass sheets during their cutting, moving, setting, and other handling operations, or as a result of stepping on sharp glass shards</li> <li>Cuts and stabs caused by working tools, such as chisels, glass-cutters, knives, etc.</li> </ul>	3
	<ul style="list-style-type: none"> <li>Acute poisoning and/or chemical burns as a result of using strong reactives (e.g., hydrofluoric acid) for etching glass and similar purposes</li> </ul>	4 5
	<ul style="list-style-type: none"> <li>Fire risk due to use of flammable materials</li> </ul>	6
	<ul style="list-style-type: none"> <li>Electric shocks caused by contact with defective electromechanical equipment</li> </ul>	
	<ul style="list-style-type: none"> <li>Eye and skin injuries from glass splinters</li> </ul>	4 5
<b>Physical hazards</b> 	<ul style="list-style-type: none"> <li>Exposure of skin and eyes to ultraviolet radiation while working under direct solar rays</li> <li>Cold or heat stress (resulting in effects ranging from temperature discomfort to frostbite or heat stroke, respectively) while working outdoors</li> <li>Health effects (e.g., rheumatic, respiratory problems, etc.) due to drafts, etc.</li> </ul>	
<b>Chemical hazards</b> 	<ul style="list-style-type: none"> <li>Chronic poisoning and/or skin diseases as a result of exposure to lead (in repair work and due to splinters of glass containing lead), arsenic and other toxic elements</li> </ul>	
	<ul style="list-style-type: none"> <li>Chronic poisoning and/or dermatologic conditions (e.g., dermatitis) caused by adhesives, cleansers, putties, sealants, solvents (e.g., when removing glass from its frame), etc. [see Note]</li> </ul>	7
	<ul style="list-style-type: none"> <li>Chronic toxic effects due to exposure to fumes of strong reactives (e.g., hydrofluoric acid)</li> </ul>	4
	<ul style="list-style-type: none"> <li>Respiratory problems caused by inhalation of rock wool, glass fibers and isocyanate foam</li> </ul>	8
<b>Biological hazards</b> 	<ul style="list-style-type: none"> <li>Biological hazards may be encountered by glaziers working in an environment where they are potentially exposed to microorganisms (e.g. in hospital work), allergenic plants, hair, fur, etc.</li> </ul>	
<b>Ergonomic, psychosocial and organizational factors</b> 	<ul style="list-style-type: none"> <li>Musculoskeletal injuries related to awkward working postures</li> </ul>	
	<ul style="list-style-type: none"> <li>Overexertion while carrying and otherwise handling bulky and heavy glass sheets</li> </ul>	9
	<ul style="list-style-type: none"> <li>Cumulative trauma disorders (CTD), including carpal tunnel syndrome, caused by long-time repetitive work involving primarily hand, arm, and fingers movements</li> </ul>	
	<ul style="list-style-type: none"> <li>Psychological stress resulting from the fears of falling from the height, of falling while cutting, handling and setting expensive glass sheets, etc.</li> </ul>	

**Preventive measures**

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- 1** Inspect ladder before climbing. Never climb on a shaky ladder or a ladder with slippery rungs
  - 2** Wear safety shoes with non-skid soles
  - 3** Use metal-mesh or other cut- or stab-resistant gloves in all work with sharp knives or other sharp tools
  - 4** Wear appropriate respiratory and eye protection equipment and gloves when working with hydrofluoric acid; consult safety specialist or supplier. Read MSDS for that acid
  - 5** Wear appropriate eye protection; consult a safety supervisor or a supplier
  - 6** Substitute less-hazardous non-flammable solvents for flammable ones
  - 7** Protect hands with chemical-resistant gloves; if impractical, use a barrier cream
  - 8** Wear a respirator to avoid inhalation of dust or aerosols
  - 9** Learn and use safe lifting and moving techniques for heavy or awkward loads; use mechanical aids to assist in lifting
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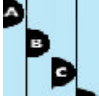
**Specialized information**


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**Synonyms** Glass installer; glass setter; glass-worker

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**Definitions and/or description**



Installs glass (including mirrors, stained and other specially treated glass) in openings (windows, doors, showcases, frames, etc.) and on surfaces (walls, ceilings, screens, tabletops, etc.). May cut, tint, decorate, or otherwise treat glass before setting. (If occupied in construction and designated Glazier (construction): Installs glass in windows, skylights, store fronts, and display cases, or on surfaces, such as building fronts, interior walls, ceilings, and tabletops: Marks outline or pattern on glass, and cuts glass, using glasscutter. Breaks off excess glass by hand or with notched tool. Fastens glass panels into wood sash with glazier's points, and spreads and smoothes putty around edge of panes with knife to seal joints. Installs mirrors or structural glass on building fronts, walls, ceilings, or tables, using mastic, screws, or decorative molding. Bolts metal hinges, handles, locks, and other hardware to prefabricated glass doors. Sets glass doors into frame and fits hinges. May install metal window and door frames into which glass panels are to be fitted. May press plastic adhesive film to glass or spray glass with tinting solution to prevent light glare. May install stained glass windows. May assemble and install metal-framed glass enclosures for showers and be designated Shower-Enclosure Installer (construction). May be designated according to type of glass installed as Glazier, Structural Glass (construction); Plate-Glass Installer (construction) [DOT]

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**Related and specific occupations**

Glazier, glass installer or glass setter designated according to industry [glazier (construction); glazier, metal furniture (furniture); refrigerator glazier (svc. ind. mach.); glass installer (automotive ser.); glass installer (woodworking)]; or to a type of material used [mirror installer (construction); glazier, stained glass (glass products)]. Also: edger, hand (glass mfg.; glass products); edger, touch-up (glass products); framer (glass products; wood prod., nec); frame repairer (glass products); glass cutter (any industry); glass decorator (glass mfg.; glass products); glass etcher (glass mfg.; glass products); glass finisher (glass products); glass sander, belt (glass products); glass tinter (glass products) [DOT]

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**Tasks**

Adjusting; aligning; applying; assembling; bolting; boring; breaking-off; calculating; check-ing; cleaning; coating; coloring; connecting; covering; cutting; decorating; drilling; driving; edging; estimating; etching; fastening; filing; fitting; framing; glazing; gluing; hammering; handling; installing; inserting; joining; laying; lifting; loading and unloading; marking; measuring; moving; operating (equipment); pencil-edging; placing; polishing; positioning; preparing; pressing; preventing; puttying; reinforcing; repairing; replacing; removing; screwing; scribing; sealing; selecting; setting; shaping; sketching; smoothing; soldering; spraying; spreading; tacking; tapping; tinting; transporting; waxing; weatherproofing; wiping

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**Primary equipment used**

Chisels; clamps; files; glasscutters; grinding tools; hammers; knives; ladder; mallets; measuring tape; notched tools; rulers; saws; screwdrivers; spatulas; sprayer; wrenches

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**Workplaces where the occupation is common**

Aquarium manufacture & repair; building industry; construction; glass cutting; glass decorating; glass installing (woodwork; automobile manufacture & repair); instruments and appliances; picture framing; property maintenance; refrigerator production

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**Notes**

There are case reports of skin disorders in glaziers, related to their exposure to quartz dust (progressive systemic scleroderma) or sealants containing polysulfide polymers (allergic contact dermatitis).



**References**

Glazing and Workplace Health and Safety, INDG212, HSE (UK).



King, R.W. and Hudson, R. Construction Hazard and Safety Handbook, p.54, Butterworths, 1985.

Adams, R.M.: Occupational Skin Diseases. Saunders Co., Philadelphia, 1990, p.628 - 629.

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