

General Description of Protection and PPE Requirements (see [29 CFR 1910.120, Appendix B](#) for additional detail)

| Level A   | Level B  | Level C  | Level D   |
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| <p>Level A protection should be worn when the highest level of respiratory, skin, eye, and mucous membrane protection is needed. It consists of a fully encapsulating chemical-resistant suit and self-contained breathing apparatus (SCBA). This suit can be worn only for 15 to 30 minutes because the person wearing it can quickly become overheated. Special training is required to utilize the suit. Level A PPE includes:</p> <ol style="list-style-type: none"> <li>a. Positive-pressure, full facepiece SCBA or positive pressure-supplied air respirator with escape SCBA</li> <li>b. Totally encapsulating chemical-protective suit</li> <li>c. Chemical-resistant outer gloves</li> <li>d. Chemical-resistant inner gloves</li> <li>e. Chemical-resistant, steel toe and shank boots meeting ANSI standards</li> </ol> <p>f.Options as required:</p> <ul style="list-style-type: none"> <li>- Cooling unit</li> <li>- Hardhat meeting ANSI standards</li> <li>- Coveralls</li> <li>- Disposable outer boots (chemical-protective, heavy vinyl rubber, neoprene, polyvinyl chloride [PVC], as appropriate)</li> </ul> <ol style="list-style-type: none"> <li>g. Two-way radios (worn inside encapsulating suit) or other equally effective means of communication such as hand signals or close-distance verbal communication, as appropriate.</li> </ol> | <p>Level B protection should be selected when the highest level of respiratory protection is needed, but a lesser level of skin and eye protection is sufficient. It differs from Level A only in that it provides splash protection by use of chemical-resistant clothing (coveralls, long sleeves, jacket, and SCBA). Level B PPE includes:</p> <ol style="list-style-type: none"> <li>a. Positive-pressure, full facepiece SCBA or positive pressure-supplied air respirator with escape SCBA</li> <li>b. Hooded chemical-resistant suit</li> <li>c. Chemical-resistant outer gloves</li> <li>d. Chemical-resistant inner gloves</li> <li>e. Chemical-resistant, steel toe and shank boots meeting ANSI standards</li> </ol> <p>f.Hardhat meeting ANSI standards</p> <ol style="list-style-type: none"> <li>g. Options as required: <ul style="list-style-type: none"> <li>- Coveralls</li> <li>- Disposable outer boots (chemical-protective, heavy vinyl rubber, neoprene, polyvinyl chloride [PVC], as appropriate)</li> <li>- Face shield</li> </ul> </li> <li>g. Two-way radios (worn under or outside protective clothing) or other equally effective means of communication such as hand signals or loud voice, as appropriate.</li> </ol> | <p>Level C protection should be selected when the type of airborne substances is known, concentration is measured, criteria for using air-purifying respirators are met, and skin and eye exposures are unlikely. This involves a full-facepiece, air-purifying, canister-equipped respirator and chemical-resistant clothing. It provides the same level of skin protection as Level B, but a lower level of respiratory protection. Level C PPE includes:</p> <ol style="list-style-type: none"> <li>a. Full-face (recommended) or half-face, air-purifying, cartridge- or canister-equipped (NIOSH/MSHA-approved) respirator, meeting NIOSH/MSHA standards</li> <li>b. Hooded chemical-resistant clothing, long sleeves, one or two pieces</li> <li>c. Chemical-resistant outer gloves</li> <li>d. Chemical-resistant inner gloves</li> <li>e. Chemical-resistant, steel toe and shank boots meeting ANSI standards</li> </ol> <p>f.Options as required:</p> <ul style="list-style-type: none"> <li>- Coveralls</li> <li>- Disposable outer boots (chemical-protective, heavy vinyl rubber, neoprene, polyvinyl chloride [PVC], as appropriate)</li> <li>- Face Shield</li> <li>- Escape Mask</li> </ul> <ol style="list-style-type: none"> <li>g. Two-way radios (worn under or outside protective clothing) or other equally effective means of communication such as hand signals or close-distance verbal communication, as appropriate.</li> </ol> | <p>Level D is primarily a work uniform. It should not be worn on any site where respiratory or skin hazards exist. It provides no respiratory protection and minimal skin protection. Level D PPE includes:</p> <ol style="list-style-type: none"> <li>a. Coveralls or other substantial work clothing</li> <li>b. Gloves, leather or chemical resistant, as appropriate</li> <li>c. Chemical-resistant (as necessary) steel toe and shank boots/shoes meeting ANSI standards</li> <li>d. Goggles or safety glasses meeting ANSI standards</li> <li>e. Hard hat meeting ANSI standards</li> </ol> |