

**WAC 296-24-71501 General.** (1) **Contamination.** The requirements in this section have been established on the basis of the following three factors in arc and gas welding which govern the amount of contamination to which welders may be exposed:

(a) Dimensions of space in which welding is to be done (with special regard to height of ceiling).

(b) Number of welders.

(c) Possible evolution of hazardous fumes, gases, or dust according to the metals involved.

(2) **Ventilation.** It is recognized that in individual instances other factors may be involved in which case ventilation or respiratory protective devices should be provided as needed to meet the equivalent requirements of this section. Such factors would include:

(a) Atmospheric conditions.

(b) Heat generated.

(c) Presence of volatile solvents.

(3) **Screens.** When welding must be performed in a space entirely screened on all sides, you must arrange the screens so that no serious restriction of ventilation exists. It is desirable to have the screens so mounted that they are about 2 feet above the floor unless the work is performed at so low a level that the screen must be extended nearer to the floor to protect nearby workers from the glare of welding.

(4) **Maximum allowable concentration.** You must provide and arrange local exhaust or general ventilating systems to keep the amount of toxic fumes, gases, or dusts below the maximum allowable concentration as specified in chapter 296-62 WAC.

Note: A number of potentially hazardous materials are employed in fluxes, coatings, coverings, and filler metals used in welding and cutting or are released to the atmosphere during welding and cutting. These include but are not limited to the materials itemized in WAC 296-24-71509 through 296-24-71523.

(5) **Hazard communication.** You must include the potentially hazardous materials employed in fluxes, coatings, coverings, and filler metals, all of which are potentially used in welding and cutting, or are released to the atmosphere during welding and cutting, in the program established to comply with the Hazard Communication Standard (HCS), WAC 296-901-140. You must ensure that each employee has access to labels on containers of such materials and safety data sheets, and is trained in accordance with the provisions of WAC 296-901-14014. Potentially hazardous materials include, but are not limited to, the materials itemized in WAC 296-24-71509 through 296-24-71523.

(a) Additional considerations for hazard communication in welding, cutting, and brazing.

(i) The suppliers must determine and must label in accordance with WAC 296-901-140 any hazards associated with the use of their materials in welding, cutting, and brazing.

(ii) In addition to any requirements imposed by WAC 296-901-140, all filler metals and fusible granular materials must carry the following notice, at a minimum, on tags, boxes, or other containers:

Do not use in areas without adequate ventilation. See ANSI Z49.1-1967 Safety in Welding, Cutting, and Allied Processes published by the American Welding Society.

(iii) Where brazing (welding) filler metals contain cadmium in significant amounts, the labels must indicate the hazards associated with cadmium including cancer, lung and kidney effects, and acute toxicity effects.

(iv) Where brazing and gas welding fluxes contain fluorine compounds, the labels must indicate the hazards associated with fluorine compounds including eye and respiratory tract effects.

(b) Prior to June 1, 2015, employers may include the following information on labels in lieu of the labeling requirements in (a) of this subsection:

(i) All filler metals and fusible granular materials must carry the following notice, as a minimum, on tags, boxes, or other containers:

CAUTION

Welding may produce fumes and gases hazardous to health. Avoid breathing these fumes and gases. Use adequate ventilation. See ANSI Z 49.1-1967 Safety in Welding and Cutting published by the American Welding Society.

(ii) Brazing (welding) filler metals containing cadmium in significant amounts must carry the following notice on tags, boxes, or other containers:

WARNING

CONTAINS CADMIUM—POISONOUS FUMES MAY BE FORMED  
ON HEATING

Do not breathe fumes. Use only with adequate ventilation such as fume collectors, exhaust ventilators, or air-supplied respirators. See ANSI Z49.1-1967.

If chest pain, cough, or fever develops after use call physician immediately.

Keep children away when using.

(iii) Brazing and gas welding fluxes containing fluorine compounds must have a cautionary wording to indicate that they contain fluorine compounds. One such cautionary wording recommended by the American Welding Society for brazing and gas welding fluxes reads as follows:

CAUTION

CONTAINS FLUORIDES

This flux when heated gives off fumes that may irritate eyes, nose and throat.

(A) Avoid fumes - Use only in well-ventilated spaces.

(B) Avoid contact of flux with eyes or skin.

(C) Do not take internally.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 15-24-100, § 296-24-71501, filed 12/1/15, effective 1/5/16. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060 and 29 C.F.R. 1910 Subpart Z. WSR 14-07-086, § 296-24-71501, filed 3/18/14, effective 5/1/14; Order 73-5, § 296-24-71501, filed 5/9/73 and Order 73-4, § 296-24-71501, filed 5/7/73.]