New Lead Free Requirements

Frequently Asked Questions (FAQ)

Effective January 4, 2014, lead free means:

(A) Not containing more than 0.2 percent lead when used with respect to solder and flux; and

(B) Not more than a weighted average of 0.25 percent lead when used with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings, and fixtures.

What is the definition of "lead free" under the Safe Drinking Water Act (SDWA)?

Under section 1417(d), "lead free" as defined in the SDWA means that solders and flux may not contain more than 0.2 percent lead, and pipes, pipe fittings, and well pumps may not contain more than 8.0 percent lead. In addition to the 8.0 percent limitation of lead content, certain plumbing fittings and fixtures must comply with standards established in accordance with section 1417(e) of the SDWA. Plumbing fittings and fixtures must comply with the standards contained in NSF Standard 61, section 9.

How exactly will the definition of lead free change?

Prior to January 4, 2014, lead free has the following definition:–

(1) When used with respect to solders and flux, lead free refers to solders and flux containing not more than 0.2 percent lead;

(2) When used with respect to pipes and pipe fittings, lead free refers to pipes and pipe fittings containing not more than 8.0 percent lead; and

(3) When used with respect to plumbing fittings and fixtures, lead free refers to plumbing fittings and fixtures in compliance with standards established in accordance with SDWA Section 1417(e) (e.g. Section 9 of NSF/ANSI Standard 61).

What did Congress mean by pipes, pipe fittings, plumbing fittings and fixtures?

By removing Section 1417(d)(3) from the definition of lead free, the 2011 amendments eliminated distinctions between "pipes" "pipe fittings", "plumbing fittings" and "plumbing fixtures." As a general matter, Congress intended that these amendments broadly apply to pipes and plumbing that may provide water for human consumption so that lead in the wetted surfaces of these conveyances can be minimized or eliminated, thus reducing exposures to lead in tap water. For purposes of these FAQs, EPA is using the term "pipes, fittings or fixtures" as a shorthand to refer to pipes, pipe fittings, plumbing fittings and fixtures, as those terms are used in the Act.

How does the lead ban limit lead in pipe, plumbing fittings, fixtures, faucets, solder and flux?

Section 1417(a)(1) of the Safe Drinking Water Act (SDWA) requires that only "lead free" pipe, solder or flux may be used in the installation or repair of (1) Public Water Systems, or (2) any plumbing in a residential or non-residential facility providing water for human consumption. In addition, Section 1417 (a)(3) prohibits the sale of pipe, plumbing fittings, fixtures, and faucets that are not lead free, except for industrial and manufacturing processes. Section 1417 (a)(3) also prohibits the sale of solder and flux that is not lead free, unless the solder or flux bears a prominent label stating that it is illegal to use the solder or flux in the installation or repair of any plumbing providing water for human consumption.

How to calculate the new rules under the Reduction of Lead in Drinking Water Act?

For purposes of the Act, the weighted average lead content of a pipe, pipe fitting, plumbing fitting, or fixture is calculated by using the following statutory formula:

- For each wetted component, the percentage of lead in the component is multiplied by the ratio of the wetted surface area of that component to the total wetted surface area of the entire product to arrive at the weighted percentage of lead of the component.
- The weighted percentage of lead of each wetted component is added together, and the sum of these weighted percentages constitute the weighted average lead content of the product. The lead content of the material used to produce wetted components is used to determine compliance.

- For lead content of materials that are provided as a range, the maximum content of the range must be used.

In the Safe Drinking Water Act, 1417(a)(4)(B) exemptions for lead content include water distribution main gate valves that are 2 inches in diameter or larger. Does this apply to all water distribution valves over 2" (especially butterfly valves) or just gate valves?

Butterfly valves are not exempt from the Reduction of Lead in Drinking Water Act. The specific items listed in that passage are the exempted materials. The exempted items specified in the passage are "toilets, bidets, urinals, fill valves, flushometer valves, tub fillers, shower valves, service saddles, or water distribution main gate valves that are 2 inches in diameter or larger" (SDWA 1417(a)(4)(B))."

Exemptions from the lead free requirements:

The SDWA includes several exemptions from the lead free requirements, specifically for plumbing devices that are used exclusively for nonpotable services, as well as a list of specific products: toilets, bidets, urinals, fill valves, flushometer valves, fire hydrants, tub fillers, shower valves, service saddles, or water distribution main gate valves that are 2 inches in diameter or larger.

Currently EPA is conducting a rulemaking to clarify issues related to the lead prohibition.

I am a plumber who installs and repairs pipes, fittings or fixtures that provide water for human consumption. If one of these devices requires replacement after January 4, 2014 does the new pipe, fitting or fixture need to meet the new federal definition?

Yes, the replacement of a pipe, fitting or fixture would trigger the requirements of Section 1417 and the new pipe, fitting or fixture would need to meet the new definition of lead free. Section 1417(a)(1) prohibits the use of a pipe, fitting or fixture that is not lead free in the installation or

repair of any plumbing in a residential or non-residential facility providing water for human consumption.

I am a manufacturer of hose bibs (threaded faucets with nozzles bent downward). I market them and sell them primarily for use outdoors (e.g. to connect to a garden hose, sprinkler, or irrigation system) but they could be used for services associated with potable water.

A hose bib is a pipe, fitting or fixture under the language of the statute and therefore it is subject to the requirements in Section 1417 unless it is used exclusively for nonpotable services. If you market and sell hose bibs for nonpotable services, and the bibs are prominently and clearly labeled as illegal to use for potable services and not anticipated to be used for human consumption, then EPA would generally consider them to be used exclusively for nonpotable services and therefore, exempt from the lead free requirements in SDWA 1417(a)(1) and (3).

I am a manufacturer of toilets, bidets, urinals, fill valves, flushometer valves, tub fillers, shower valves, service saddles, or water distribution main gate valves that are 2 inches in diameter or larger. Now that the new law exempts these products from the new lead free definition, do they still have to meet the old definition?

Once the amendments take effect on January 4, 2014, there will be nothing in the SDWA that would require any part of these products to meet the old (or new) definition of lead free. However, there may be State or local laws prohibiting these products from containing more than a certain percentage of lead, or other legal implications to increasing the lead content of these products, so manufacturers may want to seek legal advice before increasing the lead content of these products.

Now that the new definition of lead free no longer refers to pipes, fittings or fixtures in compliance with standards established in accordance with subsection (e) of this section?, could State or local law and regulations still prohibit the use of products

As of January 4, 2014, pipes, fittings or fixtures are no longer required by the SDWA to be in compliance with voluntary standards (e.g., Section 9 of NSF/ANSI Standard 61 or NSF/ANSI Standard 372) because Congress removed Section 1417(d)(3) (which referenced Section 1417(e)) from the definition of lead free. State or local laws and regulations (e.g., plumbing codes) however, may still prohibit the use of products that are not in compliance with certain voluntary standards.

I am a manufacturer of pipes, fittings or fixtures (e.g. backflow preventers). Some of the products I make are marketed and sold for use in nonpotable services exclusively, and some products I make are marketed and sold for both potable and nonpotable services.

Yes. While there is no requirement in the statute to label pipes, fittings or fixtures as either lead free or not lead free, a manufacturer could use labeling to establish that the pipe, fitting or fixture is used exclusively for nonpotable services and therefore, exempt from the lead free requirements in SDWA 1417(a)(1) and (3). In implementing the new requirements, EPA would generally consider pipes, fittings or fixtures to be used exclusively for nonpotable services if they are marketed and sold for use in nonpotable services, and prominently and clearly labeled as illegal to use in potable services and not anticipated for human consumption.

EPA also recommends that the label identify some examples of potable services to convey that it includes more than drinking water. For example, the label could say "It is illegal to use this product in potable services such as drinking water, handwashing, food preparation, and dishwashing."

I am a manufacturer of faucet-mounted water treatment devices and plumbed-in treatment devices, which may include dedicated faucets. Are these types of devices a pipe, fitting or fixture that is subject to the new lead free requirements?

Yes, both point-of-use and point-of-entry devices are covered by the lead free requirements because the terms used by Congress are commonly understood to include kitchen and bathroom faucets and the pipes leading to such faucets. These devices are typically integrated into a faucet or plumbing system that delivers drinking water and as such is considered to be

covered by the new lead free requirements. Because these devices may be designed to remove lead, EPA expects that some may already meet the lead content limit of 0.25%.

I am a manufacturer of products that are sold for use in nonpotable services but they could be connected to potable services. If I want to assure my products are used exclusively for nonpotable applications, what kind of labeling should I use?

If you choose to label your pipes, fittings or fixtures in order to establish that they are to be used exclusively for nonpotable services, the labeling should be clear and prominent; otherwise, it may not be reasonable to assume that the product will be used exclusively for nonpotable services and not anticipated to be used for human consumption. EPA recommends that the labeling consist of both a product label and a packaging label because products can get separated from their packaging. Another reason for labeling both the package and the product is that one package may contain many individual products within it and purchasers may not be aware of the label on the bulk package. EPA further recommends that product labels consist of physically marking the product, a tag physically attached to each individual product or an individual bag that contains each individual product. Labels should clearly indicate that it is illegal for use in potable services and not anticipated for human consumption.

Summary of The Reduction of Lead in Drinking Water Act And Frequently Asked Questions

The Reduction of Lead in Drinking Water Act was enacted on January 4, 201 1 to amend Section 1417 of the Safe Drinking Water Act (SDWA or Act) respecting the use and introduction into commerce of lead pipes, plumbing fittings or fixtures, solder and flux. The Act established a prospective effective date of January 4, 2014, which provided a three year timeframe for affected parties to transition to the new requirements. Upon signature the Community Fire Safety Act of 201 3' will further amend Section 1 41 7 to exempt fire hydrants. In anticipation of these changes taking effect, EPA is providing the following summary of the requirements of the lead ban provisions in Section 1417 and some answers to frequently asked questions related to the amendments to assist manufacturers, retailers, plumbers and consumers in understanding the changes to the law.

Outreach

On August 1 6, 201 2, EPA held a public webinar with stakeholders to discuss the Reduction of Lead in Drinking Water Act and the potential ramifications that this change in law may have. Participants included public utilities, government agencies, plumbing manufacturers, plumbing retailers and trade associations. At the end of this webinar, EPA solicited comments from the attendees on issues and concerns related to the new requirements. The webinar proceedings and the solicited input were used in formulating an initial set of Frequently Asked Questions (FAQs) that were published for public comment on May 23, 201 3. EPA held a webinar on November, 25 201 3 to solicit information from stakeholders regarding the applicability of Section 1 41 7 to fire hydrants. EPA was reassessing whether fire hydrants should be subject to the lead free requirements when the Community Fire Safety Act was passed. EPA has revised this document to explain that fire hydrants would be exempt from the lead free requirements in accordance with the Community Fire Safety Act.

This document, including revised answers to frequently asked questions, is intended to help the Public understand the statutory requirements, EPA intends to further clarify and refine these and other issues related to these provisions in a future rulemaking. These FAQs include some Recommendation's that are advisory only (indicated by the use of the words such as "should" or "encourages").

EPA remains interested in feedback on these FAQs, for refinement of these answers, to respond to new questions, or to determine which issues should be explored in its rulemaking. As a result, EPA may revise or supplement these FAQs from time to time.

SDWA Section 1417

Since 1 986, the Safe Drinking Water Act ("SDWA" or "the Act") has prohibited the use of certain items that are not lead free and since 1996 the Act has made it unlawful for anyone to introduce into commerce items that are not lead free.

**The Community Fire Safety Act of 2013 was passed in both the House (December 2, 2013) and Senate (December 17, 2013). As of December 19, 2013, the President's signature to enact the bill is pending.*

Source: EPA https://www.epa.gov/learn-issues/learn-about-water