increasing the precipitation amount of InSb, which is a hard compound, among compounds containing Bi, Sb, and In. However, it has been found that an alloy with high Sb content improves the Vickers hardness, but has an endothermic peak temperature more than 90℃. In addition, it has been found that the alloy in which the content of Bi is increased in order to increase the precipitation amount of In_2Bi similarly improves the Vickers hardness, but also has an endothermic peak temperature more than 90℃.

[0025] As described above, in the case of obtaining an alloy having an endothermic peak temperature of 85 to 90℃, it has been found that the adjustment of the endothermic peak temperature in this temperature range and the high Vickers hardness tend to be contradictory to each other. Therefore, as a result of further detailed studies, the present inventors have obtained findings that an alloy having an endothermic peak temperature of 85 to 90℃ and a high Vickers hardness can be obtained within an extremely narrow range of Bi and Sb contents, and the present disclosure has been completed. Along with this, it has also been found that a fusible plug having an operating temperature of 85 to 90℃ and a sprinkler head having an operating temperature of 85 to 90℃ can be obtained. The present disclosures obtained from these findings are as follows.

[0026] (0) An alloy consisting of, by mass%, Bi: 47.0 to 49.0%, Sb: 0.8 to 1.2%, with the balance being In.

(1) An alloy having an alloy composition consisting of, by mass%, Bi: 47.0 to 49.0%, Sb: 0.8 to 1.2%, with the balance being In.

[0027] (2) A fusible plug comprising the alloy according to (0) or (1) above, wherein an operating temperature is 85 to 90℃.

[0028] (3) A sprinkler head comprising the alloy according to (0) or (1) above as a fusible alloy, wherein an operating temperature is 85 to 90℃.

[0028a] In an aspect of the present disclosure, there is provided an alloy having an alloy composition consisting of, by mass%, Bi: 47.0 to 49.0%, Sb: 0.8 to 1.2%, with the balance being In, having a Vickers hardness of 6.6Hv or more, and an endothermic peak temperature of 85 to 90°C.

[0028b] In another aspect of the present disclosure, there is provided a fusible plug comprising the alloy as disclosed herein, wherein an operating temperature is 85 to 90℃.

CLAIMS

1. An alloy having an alloy composition consisting of, by mass%, Bi: 47.0 to 49.0%, Sb: 0.8 to 1.2%, with the balance being In, having a Vickers hardness of 6.6Hv or more, and an endothermic peak temperature of 85 to 90°C.

2. A fusible plug comprising the alloy according to claim 1, wherein an operating temperature is 85 to 90℃.

3. A sprinkler head comprising the alloy according to claim 1 as a fusible alloy, wherein an operating temperature is 85 to 90℃.