Risks Presented in Pine Nuts

Aflatoxins: possible but not a common issue:

Mycotoxins (ie: aflatoxins and ochratoxins) can develop in a variety of foodstuffs. In dried fruit and nuts the most common strands of these are B1, B2, G1 and G2. Aflatoxins are produced by strands of the Aspirgillus fungus. These are caused when the foodstuff gets mouldy, creating an ideal environment for the fungus to grow. The most common varieties of the fungus found in walnuts are Aspergillus flavus and A. parasiticus which thrive in hot and humid environments. Tree nuts (ie: almonds, walnuts, pistachios) are most at risk of aflatoxins. Aflatoxins are more likely to develop in kernels that have been damaged, or that have been in contact with a variety of microorganisms. This is not a common issue seen in pine nuts.

http://www.besjournal.com/freeArticles/pastIssues/2007/No6/200906/P020090604701989082609832007206949 5.pdf

Pine mouth

Pine mouth (also known as pine nut syndrome) is a condition that is thought to be caused by a certain variety (Pinus armandii) and lower grades of pine nuts, however, the exact cause remains unknown. Most cases of pine nut mouth have been traced back to the specific variety originating in certain regions of China, due to this, Pinus armandii is no longer exported. The main symptom of pine mouth is a metallic and bitter taste which affects the flavour of food. Symptoms normally last for a couple of days, but they can continue for up to a couple of weeks. Although this is unpleasant, it is not dangerous or serious to one's health. In order to avoid this, it is best to obtain a DNA certificate for the pine nuts confirming that they are of the proper variety.

Tannin

The amount of tannin in pine nuts can vary per crop, and this can present a slight difference in taste. If a crop has a higher tannin level it might have a more bitter taste. Customers might find that there is a difference in taste from a carton that has been freshly opened, and a carton that has been opened and allowed to breathe (similar to red wine). This will allow for the oxygen in the air to react with the tannins and decrease some of the harshness in the taste.

Pests/Infestation

As pine nuts are well protected by a shell and cone, insect damage does not typically pose a large threat. However, the Pine tree itself may suffer from pest damage and this can decrease the pine nut yield.

References:

http://www.fao.org/forestry/12261-09d6c18bf6807d46832a5f6c6357dab3c.pdf
https://www.food.gov.uk/business-industry/imports/banned_restricted/pine-nuts-china