Safe Method:

Preparation of fresh or tinned tuna

Tuna, if not properly stored, prepared or displayed may cause Scombrotoxin food poisoning

Safety Point	Why?	How do you do this?
Tuna, whether purchased cooked within a tin or as chilled or frozen fresh fish, if not handled, processed or chilled correctly can cause Scombrotoxin food poisoning.	Tuna is a species of fish along with Swordfish and Mackerel which contains high levels of histidine whilst alive. This may be converted to harmful histamine at any time after the fish is caught from the sea. Histamine causes a red rash on the skin as well as other symptoms such as nausea, diarrhoea, breathing difficulties, abdominal pain and in severe cases fainting. 	Purchase all tinned tuna from reputable suppliers and in date code. Follow the 'instructions on opening' which state that it should be consumed within two days. Preferably buy small tins of tuna to reduce the necessity to store the decanted contents for any longer than necessary. Purchase all fresh tuna from reputable suppliers in a fit condition and at a temperature of no more than +5.0^0 Centigrade if chilled or no more than -18.0^0 C if frozen. In what form do you purchase tuna?
Tuna needs to be stored correctly before use once opened from any tin or having been purchased fresh or frozen.	Use of the wrong temperature during storage can cause any histidine present to be converted into harmful histamine.	Indicate how you store your tuna: - In the unopened tin (at room temperature) ☐ Refrigerated at +5.0^{0}C (or colder) ☐ Frozen at -18.0^{0}C (or colder) ☐ At/around zero ^{0}C on ice (if fresh) ☐
Once opened and removed from the tin all tuna must be consumed within two days.	Keeping any tuna for more than two days adds to the risk of spoilage and the formation of histamine. 	How do you ensure that after decanting from the tin that the tuna is used by/disposed after two days?
Fresh tuna where received frozen must be safely thawed before further use.	Thawing of frozen tuna must be done in such a way as to ensure that the temperature of the product does not rise sufficiently to convert any histidine present within the fish to harmful histamine. Thawing must therefore be carried out in a controlled way and never at room temperature.	Indicate where you thaw your frozen tuna: - Refrigerated at +5.0^{0}C (or colder) ☐ If not defrosted in a refrigerator then indicate where else: -

Safety Point	Why?	How do you do this?
Once opened and removed from the tin or taken from the fridge or freezer for the purpose of preparation the tuna may become exposed to room temperatures which are significant to its safety.	Unnecessary exposure of either raw or cooked tuna to room temperatures may cause the temperature of the fish flesh to rise causing an increase in histamine within the fish. The warmer the room – the more likely that histamine will develop. Any preparation at room temperature must therefore be kept as short as practicably possible.	Indicate how you control the temperature of tuna during preparation: - By ensuring that once removed from storage that preparation time has been pre-planned and is very short ☐ That you do not <u>at any time</u> leave tuna unattended at room temperature ☐ That you prepare tuna at cooler times of the day or in cooler area(s) of the kitchen ☐ That you have instructed all staff as to the significance of temperature during preparation ☐
During preparation of tuna any contamination of the fish flesh by direct hand contact or contact with contaminated surfaces could introduce bacteria on to it.	The introduction of bacteria on to the fish during preparation and particularly those of the *Enterobacteriacea* group can readily lead to the conversion of any histidine present to harmful histamine.	Indicate how you safely prepare any tuna: - By handling with washed hands ☐ By handling with gloved hands ☐ By using sanitised cutting boards ☐ By using sanitised surfaces ☐ By using sanitised equipment ☐
Raw tuna must be adequately cooked for consumption.	Cooking tuna will kill any bacteria on/in the fish but it will not destroy any histidine or histamine which might be already present as these substances are unaffected by heat.	Indicate how you safely cook tuna: - Heat rapidly to prevent the conversion of any histidine present to harmful histamine ☐ Heat to a temperature of at least +75.0^{0}C in all parts of the fish ☐
Before sale it is essential that any tuna intended for consumption is stored or displayed at safe temperatures.	Use of the wrong temperature at this stage could cause any histidine present to be converted into harmful histamine.	Indicate how you store/display your tuna: - Stored refrigerated at +5.0^{0}C (or colder) ☐ Displayed at +5.0^{0}C (or colder) ☐

Prove it

You may want to be able to demonstrate that you are applying the correct temperatures to tuna as indicated above at all significant stages. You may elect to record the temperatures of your fridges and freezers on a daily basis if you consider it necessary to further show your compliance in this area.

What to do if things go wrong

Both safe temperature and safe handling are critical to the safety of tuna. If you consider that you have not effectively applied the measures and controls outlined above then you should throw the tuna away.

Part of your opening checks will include the checking of temperatures for storage and display refrigerators. It is advised that these are set to achieve a temperature in food of +5.0^{0}C or colder. If you cannot achieve this then try to reduce the temperature as much as possible to below +8.0^{0}C (which is the minimum legal temperature you should apply to all high – risk food).

Kitchens can be warm places, and the warmer the environment the more likely it is that histamine can develop in tuna during preparation at room temperature. If it is a particularly warm day then it might be safer not to prepare tuna at that time. Formation of histamine is rapid at a room temperature of 21.0^{0}C and very fast at temperatures approaching 30.0^{0}C. If you are unsure about the temperature of the room in which you intend to prepare tuna then use a thermometer to help you decide what to do.

If you mix tuna with other products such as mayonnaise or sweet corn then add them to the tuna in a pre-cooled fashion as this will not introduce warmth to the tuna mix. Remember that heating tuna for example in a Panini will not destroy histamine should it be present in food, so on no account should heating be regarded as any form of control measure.

Safe method completed: Date_____ **Signature:**_____