

Environmental Services Department



Common complaints regarding fish

I have found what look like glass crystals in a can of salmon - what can I do?

From time to time this department receives complaints alleging the presence of “glass” in canned fish products - generally salmon, tuna, shrimps or crab. Closer inspection of the crystals, especially when they are dry, usually reveals that they are not glass but small, opaque crystals with dull edges.

If they aren't glass then what are they?

These crystals are composed of a harmless chemical compound which goes by the name of **magnesium ammonium phosphate** (or **MAP** for short). This substance is found in **every** can of salmon and other sea food but it is seldom that the conditions are just right for the crystal to form to such a size that they can be seen by the naked eye.

Can you be sure that it isn't glass?

There is always the unlikely possibility that some broken fragments of glass gain access to canned food in even the best run canneries. However, it is a simple task to confirm that they are not glass by one of two methods:-

- 1 unlike glass **MAP** crystals can be easily scratched or crushed to a powder either with the thumbnail or between two coins; alternatively
- 2 unlike glass they are easily dissolved in dilute acid (such as is found in the human stomach). If the crystals are placed in a small pan containing a little vinegar which is then brought to the boil and the crystals dissolve then this is confirmation that they were **MAP**.

If both these tests fail and the crystals are glass then further investigation will be undertaken by the department.

I have already eaten some of the fish, will I be alright?

As previously stated the crystals dissolve in dilute acid and so they will cease to exist in the stomach shortly after being eaten, therefore, if you have eaten some you will come to no harm.

I have just bought some fish and chips and there is a worm in the fish - what is it?

Fish such as cod are commonly affected by a round worm of the species **phocanema** (commonly known as cod worm). The worms vary from creamy white to brown in colour. They are found mostly in the liver and gut (which are removed when the fish is being gutted) although some worms may penetrate into the flesh of the fish.

Are they harmful?

No. There is no evidence to show that the worm causes illness in man. In any case the worms are killed by freezing and cooking, both of which processes they will have gone through before you purchased the fish. They are obviously not pleasant to find, however, since the worm is likely to have been embedded in the flesh of the fish it is difficult to spot them in the fish in its raw state and only when the fish is cooked and is being broken up for eating will the worm become visible.

What should I do about it?

Since it is naturally found in fish and is not harmful there is little legal action which we as a department could take. Many people will obviously be unhappy about eating the fish, even though the worm is harmless. Usually by the time the matter comes to our attention the fish will be cold and inedible even if you wanted to. It is suggested that you take the fish back to the shop, inform them of what you have found and request a refund or replacement. Whilst they are not legally bound to offer you any replacement it is happy to do so.

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**Business Compliance Section of the
Environmental Services Department**
at either the

Town Hall, Library Street, Wigan 01942 828142
or
Kennedy House, Leigh 01942 733323



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