



Neutral Citation Number: [2022] EWHC 590 (QB)

Case No: QB-2017-007393

IN THE HIGH COURT OF JUSTICE
QUEEN'S BENCH DIVISION

Royal Courts of Justice
Strand, London, WC2A 2LL

Date: 17 March 2022

Before :

MRS JUSTICE YIP DBE

Between :

(1) MRS OLUYOMI AYANNUGA

(2) MR ADENIYI AYANNUGA

(by his litigation friend, MRS OLUYOMI AYANNUGA)

(3) MASTER OLUWAFERANMI AYANNUGA

(a minor, by his litigation friend, MRS OLUYOMI AYANNUGA)

(4) MASTER OLUWAPELUMI AYANNUGA

(a minor, by his litigation friend, MRS OLUYOMI AYANNUGA)

(5) MISS BEWAJI AYANNUGA

(a minor, by her litigation friend, MRS OLUYOMI AYANNUGA)

Claimants

- and -

ONE SHOT PRODUCTS LTD

Defendant

Simeon Maskrey QC and Adam Korn (instructed by Leigh Day) for the Claimants
Neil Moody QC and Jack Harris (instructed by Kennedys Law LLP) for the Defendant

Hearing dates: 2, 3, 4, 7 March 2022

Approved Judgment

Covid-19 Protocol: This judgment was handed down remotely by circulation to the parties' representatives by email, release to BAILII and publication on the Courts and Tribunals Judiciary website. The date and time for hand-down is deemed to be 10.30a.m. on 17 March 2022.

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MRS JUSTICE YIP

Mrs Justice Yip DBE :

1. A terrible tragedy occurred at the home of the Ayannuga family on 1st January 2015, when the simple act of unblocking the kitchen sink left one man dead and another catastrophically brain injured by hydrogen sulphide poisoning. It is the claimants' case that the gas was generated by a chemical reaction caused by the use of One Shot drain cleaner. The defendant denies this, contending that the more likely explanation is that there was an escape of sewer gas following the opening up of the waste pipe.
2. This claim is brought by and on behalf of the members of the Ayannuga family. They each seek damages for personal injury. In Mr Ayannuga's case, substantial damages are sought in respect of the catastrophic injury he sustained through inhalation of the gas. Mrs Ayannuga, who was also stricken by the gas, seeks to recover for the physical and psychiatric harm she sustained. There are also claims for psychiatric harm for the three children. At this stage, I am not concerned with the quantum of any of the claims, or any issues about the recoverability of damages for the children as secondary victims.
3. The claim proceeds against the defendant, as the manufacturer of One Shot, under the Consumer Protection Act 1987. The claimants' case is that the product was defective because its intended use as a drain cleaner contributed to the production of a highly toxic gas in sufficient quantities to cause death and serious personal injury.
4. This judgment follows the trial of two preliminary issues, namely:
 - i) Whether the defendant's One Shot Instant Drain Cleaner product is deemed to be defective for the purpose of the Consumer Protection Act 1987;
 - ii) Whether the damage (physical personal injuries) alleged by the first and second claimants was caused or contributed to by a defect in the defendant's product.

Factual background

5. The man who died, Mr Tito Gbadegeshin, was a friend of the family. He and Mr Ayannuga both worked for South West Trains. Mr Gbadegeshin was a cleaning supervisor. He also did some plumbing and general handywork on his own account. At trial, no one criticised him or his actions.
6. The Ayannuga family comprised Mr and Mrs Ayannuga and their three children, then aged 12, 8 and 4. They lived in a fourth floor flat, 18 Boulter House. Their kitchen sink became blocked over the Christmas and New Year period. Mrs Ayannuga tried to unblock it with a plunger. When that was unsuccessful, they called Mr Gbadegeshin. He arrived at the flat at about 9pm on New Year's Day. He brought a bottle of One Shot with him. It is accepted that he used the product.
7. One Shot is marketed as an instant drain cleaner. It is produced by the defendant company, whose Managing Director is Mr Steven Mounce, from whom I heard evidence. It is 91% sulphuric acid. The other ingredients are water and bromothymol blue, which is used as a colouring agent, giving it a distinctive purple colour and allowing users to see where the product is going. One Shot has been produced for over 30 years and according to Mr Mounce over 16 million bottles have been sold. A legislative change resulting from unrelated concerns about unlawful usage of concentrated

sulphuric acid products means that a licence is now required to buy it. At the time, it was readily available to consumers.

8. I shall return to the detail of events that night but it is uncontroversial that Mr Gbadegeshin's work on the plumbing included both pouring some One Shot down the plughole and removing a piece of the waste pipe. While he was working in the kitchen, he was overcome by hydrogen sulphide gas and collapsed and died. He was pronounced dead at the scene. Mr Ayannuga went to his aid. He too was overcome and was rendered unconscious. He suffered such severe damage to his brain that he has been left in a persistent vegetative state. He has been unable to return home to his family and is currently accommodated at the Royal Hospital for Neuro-disability in Putney. Mrs Ayannuga witnessed her husband and their friend lying unconscious in the kitchen. She entered the kitchen and was also stricken and lost consciousness. Her son, Oluwaferanmi, then only 12 years' old, showed remarkable maturity and presence of mind. He spoke to the emergency services and then led his two younger siblings to safety. Happily, none of the children suffered physical injury but there have been psychological sequelae.

The inquest into Mr Gbadegeshin's death

9. The inquest into Mr Gbadegeshin's death was opened on 7 January 2015 before the Assistant Coroner, Briony Ballard. Evidence was heard across several dates and the Assistant Coroner's verdict was delivered on 23 June 2016. The Assistant Coroner recorded that:

“the deceased died as a result of his attempt to unblock a drain using a chemical product containing sulphuric acid, which led to the release of hydrogen sulphide, leading to death from intoxication of that gas.”

Having concluded that the source of the gas was due to the use of the One Shot, the Assistant Coroner said:

“What I cannot be satisfied of, however, is how come the use of the product on this occasion by Tito led to the release of hydrogen sulphide and in such quantities to result in the death of himself and the continued condition of Mr Ayannuga. I cannot be satisfied that this was down to misuse on the part of Tito, nor can I be satisfied it was down to a failure in the product itself. Indeed there is a complete lack of evidence regarding the latter. There is an evidential gap in this case which I must not seek to fill with speculation.”

10. I was provided with transcripts of the inquest proceedings and it was agreed that the evidence given to the Assistant Coroner could be used as evidence in this case.

The evidence at trial

11. The claimants' lay evidence was presented by way of written statements. It was sensibly agreed that it was unnecessary for the claimants' witnesses to be cross-examined. Mrs Ayannuga gave evidence at the inquest and I have been able to read the

transcript of her cross-examination. There is no doubt that recalling what happened is very distressing for her and there would have been no benefit in requiring her to relive matters again in the witness box. There is no suggestion that Oluwaferanmi was doing anything other than attempting to give a truthful and accurate account when he gave his statement in November 2021, and again there was no need for him to be cross-examined. A statement from Mrs Ayannuga's brother added very little given the live issues at trial. I also had a statement from Mr Scott Carlaw of Thames Water, which was prepared with reference to company records in answer to questions about the sewers at Boulter House.

12. Mr Mounce attended to give evidence on behalf of the defendant, and was cross-examined. I am bound to say that I did not find him to be an impressive witness. I thought he displayed a distinct lack of empathy and was surprisingly unconcerned about the findings from the inquest. My assessment was that he had rejected any possibility that his company's product might be unsafe without adequate investigation. I found that somewhat troubling, although in the end it did not have a huge bearing on the issues I had to decide.
13. Expert evidence was called from Mr Jonathan Thomas, a forensic chemist, on behalf of the claimants and from Mr A J A Muston, a Fellow of the Institution of Chemical Engineers, on behalf of the defendant. The expert evidence focused upon the cause of the emission of hydrogen sulphide into the kitchen. I thought that both experts did their best to assist the court within the scope of their expertise. This is not a case in which my determination depends upon simply preferring one expert over the other. My findings of fact take account of all the evidence in the case, of which the expert evidence is just a part, albeit an important part.
14. Expert medical opinion in the form of a written report from Professor Robin Ferner, a toxicologist, was placed before me. By trial, his evidence that the death of Mr Gbadegeshin and the collapse of Mr and Mrs Ayannuga were entirely consistent with hydrogen sulphide poisoning was not contentious and he was not required to attend trial. His report contains some useful information about the effects of hydrogen sulphide on the human body, including noting that a single breath of very high concentrations of the gas can cause death.
15. I was also presented with a substantial amount of documentary evidence. I have considered that which the parties referred to in the course of trial but have not otherwise trawled through all the material.

The issues I must resolve

16. The claim is brought solely under the Consumer Protection Act 1987 ("the Act"). Section 2(1) of the Act provides that the producer of a product will be liable for any damage "caused wholly or partly by a defect in a product". Section 3(1) provides that there is a defect in a product for these purposes if "the safety of the product is not such as persons generally are entitled to expect." In determining what persons generally are entitled to expect in relation to a product, section 3(2) provides:

"... all the circumstances are to be taken into account, including-

(a) the manner in which, and purposes for which, the product has been marketed, its get-up, the use of any mark in relation to the product and any instructions for, or warnings with respect to, doing or refraining from doing anything with or in relation to the product;

(b) what reasonably might be expected to be done with or in relation to the product; ...”

17. The Act does not therefore require proof of negligence. Rather, claimants must show that there was a defect in the product (within the meaning set out in section 3) and that this defect was the cause of the damage for which they claim.

18. Since there is no dispute that Mr Gbadegeshin’s death and the personal injury sustained by Mr and Mrs Ayannuga were caused by the inhalation of hydrogen sulphide, the case was opened to me on the basis that there were two essential issues to resolve:

- i) Did the use of One Shot materially contribute to the formation of the gas?
- ii) If so, does that mean that in the circumstances of this case One Shot was defective within the meaning of the Act?

19. Mr Maskrey QC described the first of those issues as the crux of the case. It was the focus of the expert evidence. In the particular circumstances of this case, there is a logic in analysing that issue first. The defendant advances a positive case that there was an alternative cause, namely the escape of sewer gas which was unrelated to the use of One Shot. In the alternative, the defendant contends that the claimants have simply not established, on the balance of probabilities, that the use of One Shot played a part in the release of the gas. Absent a factual finding that there was a causal link between the One Shot and the production of hydrogen sulphide, the claim cannot succeed.

20. The claimants’ opening invited me to address the issues in the order identified, that is to deal with the factual causation question first “before asking whether the product is therefore (in the circumstances of the case) defective.” The defendant’s skeleton argument invited me to follow the approach set out by Hickinbottom J in *Wilkes v DePuy International Limited* [2016] EWHC 3097 [58] and followed by Andrews J in *Gee v DePuy International Limited* [2018] EWHC 1208 [98]:

“proof of a causal connection between defect and damage cannot rationally, or even conceptually, be attempted without ascertainment of whether there is a defect, and, if so what that defect might be.”

The claimants’ opening acknowledged that this was the correct approach and made it clear that they were not overlooking such observations in addressing the relevant questions in the order in which they did. In closing, when the issues had crystallised, Mr Maskrey QC dealt with the question of whether there was a defect in the product first and then addressed causation.

21. It seems to me that the important principle is that I must avoid conflating the issue of whether the use of the product contributed to the damage with the issue of whether the

product was defective. However, there is a fundamental factual dispute as to whether the product in question played any part in the release of the gas which caused the damage. If the claimants cannot overcome that hurdle, then self-evidently they cannot prove that their damage was caused wholly or partly by a defect in the product and the claim must fail. A finding that the product played a part in the production of the lethal gas cannot of itself equate to a finding that the product was defective. The findings that I make in relation to factual causation may though illuminate the issues I must consider in deciding whether there was a defect within the meaning of the Act. I therefore propose to address factual causation first.

22. Although not admitted in the Defence, the defendant conceded at the start of the trial that Mr Gbadegeshin poured One Shot into the sink. This was a sensible concession. There was clear contemporaneous evidence that the product was used and I unhesitatingly accept Mrs Ayannuga's account that Mr Gbadegeshin brought and used the product in an attempt to unblock the drain. I note that there was some exploration at the inquest about whether a nearly empty bottle of One Shot produced by Mrs Ayannuga was in fact the bottle Mr Gbadegeshin used. This was further explored within the expert evidence. The defendant maintains that there are some unexplained discrepancies in the evidence. The point is no longer of any significance given the concession that One Shot was used. If there is any underlying hint that Mrs Ayannuga was in some way fabricating her evidence about finding the bottle, I reject that. I need say no more since it is of no relevance to any live issue.
23. The first question for me then is whether the admitted use of One Shot by Mr Gbadegeshin materially contributed to the formation of the gas. It is, of course, for the claimant to prove this on the balance of probabilities. The authorities dealing with how I should approach the question of whether the claimant has established this are well-known and need not be repeated here. A useful recent summary of the principles is to be found in *Graves v Brouwer* [2015] EWCA Civ 595 at [24] to [30] and I bear those principles in mind.
24. I must approach the issue of causation, applying common sense and looking at the whole evidential picture. The expert evidence forms part of that evidential picture, but it is just a part and I must have regard to all the evidence in the case. I should also bear in mind any gaps in what is known, and the reasons for those gaps. I note that, at first sight, both sides' explanations appear improbable. It is always possible that there is an unknown explanation, but the experts have given anxious consideration to what else might have caused the gas and can suggest nothing. I should consider each side's theory and test it against the evidence. In doing so, I will bear in mind that I am not bound to find one way or another, although the reality in this case may be that analysis of the competing explanations will lead to the answer. Ultimately, having analysed the evidence, I must (as the Court of Appeal in *Graves* suggest) stand back and ask myself whether I am satisfied that the claimants' explanation is more likely than not to be right.

The parties' respective theories

25. There was some crystallisation of each side's case up to, and indeed at, trial. It has always been the claimants' case that when the One Shot was poured down the sink it reacted with something to produce the toxic gas. In the Particulars of Claim, it was suggested that the precise nature of the chemical reaction was unknown and unknowable. Various common household items, including foodstuffs and any item

containing lime sulphur are capable of reacting with the sulphuric acid in One Shot to produce hydrogen sulphide. In his report, Mr Thomas suggested that the One Shot reacted either with a product containing lime sulphur or with a 'cocktail' of substances, the composition of which was unknown but could include foodstuffs, domestic chemicals and iron from wire scrubbing pads. Mr Muston refuted the suggestion that a reaction with anything present in foodstuffs could produce sufficient quantities of the gas to cause the death and serious injury which occurred in this case. He produced detailed calculations in support. Those calculations were agreed by Mr Thomas, leading to him abandoning his 'cocktail' theory. Iron sulphide was rejected as an explanation since it is not readily available in a domestic context. The claimants' case was accordingly opened on the basis that the One Shot reacted with lime sulphur.

26. It is agreed that sufficient gas would be produced if about 25 mls of One Shot were added to 330 mls of a product containing 20% lime sulphur. To put that volume in context, it is the size of a typical fizzy drink can. Lime sulphur is used in pest control both in a horticultural context (particularly in vineyards) and for use on animals. It is generally sold in diluted form (between 1:16 and 1:32) although it has a particular use by bonsai enthusiasts when it is used undiluted. It has a distinctive orange colour and a 'rotten egg' odour.
27. As acknowledged by both Mr Thomas and Mr Maskrey QC at trial, the claimant's theory requires that a product containing lime sulphur was poured down the sink after the blockage occurred, so that it was sitting between the blockage and the plughole and would meet the One Shot when the latter was poured into the plughole. As to who the claimants contend put the lime sulphur product into the sink, the possible contenders are Mr Ayannuga and Mr Gbadegeshin. Sadly, neither of them can give evidence. The claimants' theory is that either Mr Ayannuga disposed of the lime sulphur product down the sink or, probably more likely, that there was a misguided belief that it was something that might clear the blockage.
28. It was readily accepted by Mr Maskrey QC, in opening and closing the claimants' case, that there was a significant lacuna in the evidence in that there was no explanation as to how or why a product containing lime sulphur was in the flat and/or put down the sink. However, he stressed that this was the only lacuna affecting the claimants' theory. Otherwise, it presents a simple and plausible explanation for the production of the gas.
29. The defendant's theory is that the use of One Shot shortly before Mr Gbadegeshin's collapse was entirely coincidental and not in any way causative of what occurred. It is known that, as well as using One Shot, Mr Gbadegeshin removed a piece of pipework from under the sink. The defendant suggests that this is likely to have happened after the use of One Shot and that it was the removal of the pipe which was the causative event. In simple terms, the defendant's case is that this allowed the ingress of sewer gas from the foul drain system.
30. Hydrogen sulphide is produced as a by-product of the breakdown of organic matter. It is well-known that it can be generated in sewers and drains. The characteristic smell of sewer gas comes from hydrogen sulphide. The gas presents an occupational hazard for sewer workers. Hydrogen sulphide poisoning in a domestic context is rare. The production of hydrogen sulphide requires certain conditions, to which I shall return. The defendant contends that such conditions were present at Boulter House.

31. In his report, Mr Muston said that he regarded it as much more plausible that the gas came from the drain system than from a reaction caused by the use of One Shot. His research identified rare cases where it was reported that hydrogen sulphide poisoning had occurred in a domestic setting and where the gas was considered to come from the drainage system. Mr Muston expanded upon his theory in the witness box in answer to questions, explaining the mechanics by which he considered it possible that gas from the sewer could have entered this fourth floor flat. In short, he suggested that a pocket of hydrogen sulphide could rise in the sewer vent pipe through convection and that if the waste pipe was opened not far from the sewer vent pipe, the gas could be diverted into the kitchen. He accepted that this mechanism required specific and unusual conditions and acknowledged the coincidence of such conditions existing at the very time that the pipe was opened. However, he maintained that basic principles of physics and engineering provided a mechanism for the gas to have entered the kitchen as a result of the removal of the pipe.

Analysis of the causation evidence

32. Save where I state otherwise, I take the facts from my interpretation of Mrs Ayannuga's evidence as contained in her written statement and the transcript of her oral evidence at the inquest. She said that the sink had been blocked for "a couple of days". In her statement for the inquest, she said:

"My husband had attempted to unblock it by using a plunger but this was unsuccessful."

When questioned by the Assistant Coroner, Mrs Ayannuga said that she, not her husband, had used the plunger. I note the non-adversarial nature of the questioning and the care taken by the Assistant Coroner to check this point. In the circumstances, I prefer the account given at the inquest that it was Mrs Ayannuga rather than her husband who attempted to unblock the sink before calling Mr Gbadegeshin. In her statement, Mrs Ayannuga clearly stated:

"We had not used other chemical products to try to unblock the sink."

This was confirmed when she gave evidence at the inquest:

"Q: Did you try any products at all?"

A: Not at all."

33. Mr Ayannuga called his friend Mr Gbadegeshin for help. Mr Gbadegeshin did not come immediately and there were some further calls chasing him. Mrs Ayannuga spoke to him. When Mr Gbadegeshin arrived at the flat that evening, he was carrying the box of One Shot drain cleaner. He went into the kitchen and began work. Mr Gbadegeshin had brought a halogen work lamp with him which, at some point, he plugged in and placed under the sink. The family were in the living room. Mrs Ayannuga went into the kitchen and saw Mr Gbadegeshin lying on the floor, apparently working on the sink.
34. After a little while, Mr Gbadegeshin came out to speak to them. He told them that the sink was really blocked and that he had put some One Shot down and was leaving it for

a little while to work. He was chatting to Mr Ayannuga. He then said he was going to have a look and add more of the product if the sink was not unblocked. Mrs Ayannuga's recollection is that she noticed a bit of an odour at that stage although it was not strong. She described it as a "chemical smell". Mr Gbadegeshin returned to the kitchen.

35. After "approximately several minutes", Mrs Ayannuga heard "a loud bang which sounded like something had fallen onto the floor". She said that she ran to the kitchen and saw Mr Gbadegeshin lying on the floor next to the kitchen sink. She called for her husband, who rushed to help Mr Gbadegeshin but collapsed almost immediately after entering the kitchen. Mrs Ayannuga called the emergency services then ran back to the kitchen. She recalls seeing fumes rising from the halogen lamp and noticing a strong chemical smell at that point. She moved to turn the lamp off but she too was then overcome and collapsed.
36. Oluwaferanmi describes things differently. He stated:

"I remember hearing something going on in the kitchen and then my dad went in to see what was happening. ... I remember hearing an explosion at that time. It was a really loud noise that caused a massive shock to me and my siblings I can still hear the noise. It was really loud. Much louder than anything I can describe. It wasn't the same noise as something falling down. It was like a blast sound."

He found all three adults lying on the kitchen floor. Mrs Ayannuga was right beside the door. He tried to pull her out but could not. He noticed "a smell like rotten eggs, like a stink bomb". He found the telephone by his mother and called 999, before evacuating his siblings.

37. Oluwaferanmi's clear evidence that the sound he heard was an explosion rather than something falling and Mrs Ayannuga's evidence of seeing fumes rising from the lamp is a little puzzling. Mr Thomas told me that hydrogen sulphide gas is explosive at 4% concentration and that turning a halogen light on could provide sufficient energy to cause ignition. However, both experts agree that there is no other evidence that an explosion occurred. There was no blast damage or evidence of burns or other injuries such as might be expected following an explosion. Neither party places reliance on Oluwaferanmi's evidence that there was an explosion. In those circumstances, and given the expert evidence, I avoid speculating and will put this evidence aside.
38. The ambulance service was the first to arrive in response to the 999 call. The paramedics noticed an "indescribable offensive smell" as they approached the flat. Mr Muston attached to his report a helpful chronology detailing the attendance of various members of the emergency services. I note that the first 999 call was made at 21:49. There are multiple reports of an offensive / rotten eggs smell. The Fire Brigade carried out testing for hazardous substances. Sometime between 22:15 and 22.31 hydrogen sulphide gas was detected, with a peak reading of 68 parts per million near to the kitchen (compared with the concentration of at least 500 ppm which must have been present earlier to cause 'knockdown'). Police photographs of the scene were taken the following day. They show that a piece of plastic drain pipe had been disconnected. There was a green washing up bowl under the sink which contained a brown liquid.

There was some evidence given at the inquest to suggest that the Fire Brigade had capped off some of the pipework under the sink before leaving the scene.

39. There is no evidence of the purchase or use of any product containing lime sulphur by the Ayannuga family. Mrs Ayannuga has not suggested any possible use that they had for lime sulphur. There is no evidence they had a pet, still less one that required treatment with lime sulphur. There is no suggestion of any interest in bonsai cultivation or any other horticultural activity. Unlike the One Shot, there is no evidence of any bottle or packaging for a lime sulphur product being found in the flat.
40. I consider it fanciful to suggest that Mr Ayannuga coincidentally decided to dispose of a product for which he had no obvious use at that time, and that he did so by pouring it into the kitchen sink after it had become blocked. If there was a not insignificant quantity of lime sulphur solution sitting in the waste pipe above the level of the blockage, the only sensible explanation must be that it was poured down the plughole by someone thinking that it might help unblock the sink. While acknowledging that the facts were a matter for me, Mr Thomas confirmed that this was his theory to explain the presence of lime sulphur.
41. The difficulty with this theory is that it does not fit with the available evidence. In my judgment, this is not merely a case of there being a lacuna in the evidence. Rather, the evidence that there is positively contradicts the suggested explanation.
42. Mrs Ayannuga's clear evidence is that she and her husband had not used any products to try to unblock the sink. To find that Mr Ayannuga had in fact poured lime sulphur into the sink after the blockage occurred, I would have to find that he did so without his wife's knowledge. This would be very surprising. Her evidence is that it was she who initially tried to unblock the sink and that she and her husband both spoke to Mr Gbadegeshin about him coming to help. Her son's evidence is that she had been talking about the blocked sink for a few days and complaining. In those circumstances, it is unlikely that Mr Ayannuga would have tried to unblock the sink using a lime sulphur solution without saying anything to her about that. Further, Mr Thomas said that lime sulphur has a pungent smell, which would be noticed when the bottle was opened. It is strongly coloured and stains easily. Gloves should be worn when using it. It might reasonably be expected that Mrs Ayannuga would recall her husband having and using such a product.
43. There is no explanation as to why Mr Ayannuga might have thought that a product containing lime sulphur might be used to unblock the sink. Mr Thomas confirmed that such products would not generally be marked with chemical warning symbols. Although the product is corrosive when undiluted, it is not required to be marked as corrosive. While I do not rule out the possibility suggested by Mr Thomas that someone might give anything a go, it is not obvious why anyone would think a bottle of pet shampoo, a product for whitening the dead wood of a bonsai tree or a plant pesticide might help with unblocking a sink. There also remains the problem that there is no reason why Mr Ayannuga would have any such product to hand so as to 'give it a go'. I do not think it in any way realistic to suggest either that he may have bought it thinking it was a drain cleaner, or that he may have bought it in error and decided to pour it down the sink after the sink became blocked.

44. The alternative that Mr Gbadegeshin put the lime sulphur down the sink is also inconsistent with the evidence. Mr Gbadegeshin was a cleaning supervisor and was experienced at carrying out plumbing tasks. It can reasonably be inferred that he would have some knowledge of what products to use to unblock a sink. His partner told the inquest that he had his own set of plumbing equipment. According to Mrs Ayannuga he arrived at the flat, carrying the box of One Shot. She does not describe him carrying any other product. After he had spent a couple of minutes in the kitchen, he came out to speak to her and her husband. He said that he had used the One Shot and was leaving it to take effect. He did not say anything about putting anything else down the sink. He did not, for example, suggest that he had tried something else first or that he had added another product as it might make the One Shot more effective. Not only does Mrs Ayannuga's evidence not support a suggestion that Mr Gbadegeshin poured lime sulphur into the sink, it positively points away from him having done so.
45. Given that there is no evidence at all of any use of lime sulphur or even of its presence in the flat, why is it suggested that there was a quantity of lime sulphur solution in the sink at the time that the One Shot was used? The answer is that the suggestion comes from working backwards. Knowing that death and serious injury was caused by hydrogen sulphide poisoning and that One Shot was used that evening, Mr Thomas has asked what could have reacted with sulphuric acid to produce the quantities of the gas required. The only substance which could do that and which might sensibly be found in a domestic setting is lime sulphur. The claimants say there is no other explanation for the gas and therefore, notwithstanding the lack of any positive evidence that lime sulphur was present, I can conclude that this must be the case.
46. I consider that this represents a flawed line of reasoning. It effectively invites an inference to be drawn from the outcome, ignoring clear evidence to the contrary. In my view, this amounts to little more than an assumption that there was a causal link with the One Shot because that product had been used shortly before the toxic gas is known to have been present. As a starting point, that may not have been an unreasonable assumption. It is one that I believe is reflected in the findings of the Assistant Coroner. However, she did not have the benefit of all the evidence that was before me, in particular the expert opinions. Her role was very different from mine. The inquest did not involve the same detailed analysis of the cause of the hydrogen sulphide gas as was conducted before me.
47. Had Mr Thomas's 'cocktail' theory been scientifically sustainable, that would have provided a factually plausible explanation for a causal link to the One Shot. However, Mr Muston's careful analysis supported by his calculations demonstrated, as is now conceded by Mr Thomas, that sufficient hydrogen sulphide gas could not have been produced by a chemical reaction with a mix of foodstuffs and other material which might be expected to have become stuck in the waste pipes. It therefore became necessary for the claimants' case to be predicated on the presence of lime sulphur. However, I find on the evidence available to me that the presence of lime sulphur in the waste system is implausible. It does not help the claimants that a reaction between lime sulphur and the sulphuric acid in One Shot would provide a scientifically simple and straightforward explanation for the production of hydrogen sulphide or that there was evidence that small quantities of the gas were known to be produced with normal use of the product. If anything, the reliance upon these matters demonstrates the flawed

reasoning, involving jumping to conclusions which are simply not supported by the evidence.

48. In his closing submissions, Mr Maskrey QC asked:

“Is it implausible that [lime sulphur] was bought by someone, that it was appreciated that it was bought in error and was thus thrown away? Is it implausible that it was used thinking it might unblock the drain? If so, then the claimant’s whole case becomes implausible.”

For the reasons already given, my answers to both these questions are yes, it is implausible. That being so, I do find that the claimant’s theory is implausible.

49. I have not though looked at the claimants’ theory, involving the use of lime sulphur, in isolation. I acknowledge that unlikely things do happen. Indeed, experience of personal injury claims provides many examples of inherently unlikely things happening. Accidents are often the result of a combination of seemingly improbable events. I have also carefully considered the sequence of events and have analysed whether there is any alternative explanation for what occurred. That brings me to the defendant’s postulated theory. Mr Maskrey QC invited me to “compare and contrast” the claimants’ theory with the sewer gas theory. I have done so.

50. The defendant invites me to find that Mr Gbadegeshin removed the piece of pipe after he had applied the One Shot and waited for it to work. On balance, I think that is probably right. Although I do not really consider it a matter for the experts, both agreed that this would represent the more usual sequence. It would fit with the instructions provided for One Shot. The aim of using a chemical drain cleaner is to melt the blockage, allowing it to be washed away. If that works, there is then no need to open the pipework. Mr Maskrey QC suggested that it was possible Mr Gbadegeshin wanted the blockage to be removed into the bowl rather than being dissolved and washed away downstream where it could reform. I agree that this is possible, but think it unlikely. I doubt that Mr Gbadegeshin would have left the pipework open having poured the One Shot down and simply walked away leaving the bowl to collect anything that came out of the open pipe. That does not seem a responsible thing to do bearing in mind the use of concentrated sulphuric acid. Mrs Ayannuga’s evidence that she saw Mr Gbadegeshin lying on the floor working under the sink before the point at which he said he had put the One Shot down might provide some support for suggesting he had already opened the pipe. On balance though, I find that Mr Gbadegeshin first tried to use the One Shot and only opened the pipe during the minutes that passed after he returned to the kitchen following his conversation with the Ayannugas in the living room and before his collapse.

51. Mr Muston’s theory is that when Mr Gbadegeshin disconnected the pipe, he opened the kitchen up to gasses and smells in the downstream foul drain system. While the pipework was intact, the U bend under the sink acted as a trap which prevented such gasses and smells from passing up through the plughole. That is its purpose. Mr Muston says, and I agree, that it is a reasonable assumption that all other U bends and traps in the flat and in the neighbouring flats were in place and functioning at the time.

52. Mr Muston noted that while hydrogen sulphide poisonings occur in occupational settings, they are very rare in domestic environments. However, his research for the purpose of this case uncovered two reports of hydrogen sulphide poisoning in a domestic context where there was evidence of attempts to unblock a drain. A report by Sastre et al in the Journal of Forensic Sciences (January 2013) described a case where a woman and her baby were found lifeless in their kitchen. The baby was in a highchair with a plate of food. The mother was lying by the sink and there was a plunger next to the sink. It was concluded that they had died from hydrogen sulphide poisoning. The report noted:

“... expert surveys of the premises after the two deaths suggested a complex mechanism involving both defective maintenance of the pipes and drains of the building and faulty assembly of the sink siphon, which led to stagnation of waste water and formation of a pocket of hydrogen sulfide. ...

... the pocket may have been released when the woman attempted to clear the sink pipe by using a plunger, causing massive and sudden release of H₂S (it was noteworthy that no commercial chemical product for clearing pipes was found on the premises).”

It was noted that it was remarkable that the husband and father of the deceased who found them suffered no ill effects. The suggested explanation was that the gas had probably become diluted in the atmosphere before his arrival.

53. Ramoo et al reported another case in the Journal of Forensic Toxicology and Pharmacology (2015). A woman was found collapsed on her kitchen floor after apparently attempting to unclog a kitchen sink. She lived with a friend who reported that they had been attempting to unclog the drain under the sink before the friend left for work. A solution labelled “Liquid Fire”, a product containing sulphuric acid, appeared to have been used. The drain trap had been removed. The emergency responder reported the smell of sewer gas. The report concluded that:

“... the clog had likely caused stagnant waste water. When our subject removed the pipes and drain trap, she effectively released the pocket of hydrogen sulfide into the air under the cabinet.”

54. For completeness, I note that another report “Accidental Inhalation of Drain Cleaner Fumes” (Oderda 1975), raised concern about the sale of concentrated solutions of acids and bases for use as drain cleaners. There is a suggestion in that report that a fatal incident was caused by the inhalation of hydrogen sulphide. Mr Muston initially concluded the gas was more likely to have been chlorine, resulting from the use of an acidic cleaner following the earlier use of three alkaline cleaners. However, having considered the reported egg smell, he accepted this was consistent with hydrogen sulphide. It was notable that the property had a septic tank without a trap, from which hydrogen sulphide could come, and that acid cleaners should not be allowed to come into contact with sulphide waste, such as would be found in a septic tank.
55. In May 2014, a CCTV inspection found that the drainage system at Boulter House was “not in a satisfactory structural condition.” There were many offset joints. nWater was

holding in the pipework. Cement and debris deposits were noted, affecting the free flow of waste through the system. Repairs were recommended but were not carried out until sometime after 19 February 2015. Even after that, there are reports of occasions when soil vent pipes had to be jetted to remove blockages. However, Mr Carslaw's statement confirmed that there were no reports of blockages which required jetting or other clearance work in the six months prior to 1 January 2015.

56. Mr Muston acknowledged in his report that it was not clear whether any of the defects identified or any other aspect of the drain system would have increased the risk of hydrogen sulphide forming. He noted that there was no report of unexpected standing (stagnant) water. A letter from Lewisham Homes, who managed the property, confirmed that they were not aware of any reports of the production of hydrogen sulphide gas in the wastewater drains and sewers.
57. Mr Muston's evidence was that a full blockage is not required in order to create the conditions for hydrogen sulphide to be produced in sewers. A partial blockage can create such conditions and will often go entirely unnoticed. When hydrogen sulphide does develop in sewers it is often not detected.
58. It was put to Mr Thomas that conditions were present which might mean there was stagnant water in the waste system. He said:

“I suppose it is a possibility but there's no certainty in that.”

He agreed that it was possible that wet sludgy waste could have caught in the pipework. However, he did not concede that the conditions for the production of hydrogen sulphide were present.

59. I thought that Mr Muston had a greater understanding of the conditions in sewers than Mr Thomas, perhaps based upon his broader experience as a chemical engineer. Mr Muston told me that he had looked through enough sewers through CCTV to know that conditions in sewers are not static but change over time. Sometimes they can be blocked but when one looks again they are not. He was measured in what he said about the waste system at Boulter House. He accepted that conditions were not terrible, rather they were 'non-ideal'. He accepted that the report from May 2014 did not demonstrate standing water to a significant extent and agreed that for his theory to work, there would have had to have been a build-up of standing water after May 2014.
60. Generally, I was impressed by Mr Muston's evidence. I thought he was a careful expert, who gave his evidence in a balanced, reflective and measured way. He was prepared to make sensible concessions. He responded well to detailed cross-examination, providing clear answers which were plainly grounded in his scientific and engineering experience. Mr Maskrey QC suggested in closing that, as his evidence went on, Mr Muston's theory became ever more improbable. My assessment was the opposite. I considered that as his evidence was skilfully tested and probed by Mr Maskrey QC, Mr Muston's explanations became ever more compelling.
61. Although not subject to detailed comment in his report, Mr Muston had dealt with the formation of hydrogen sulphide in the Joint Statement (see paragraph 10). If a criticism could be made of his evidence, it is that his written evidence did not contain an explanation for how the sewer gas could get to the fourth floor flat and why it would

then enter Flat 18 without affecting the other flats. Mr Maskrey QC made this point forcefully. Mr Muston was prepared to accept that he should perhaps have covered the mechanics in his report. He said this:

“The formation is well known and it is perhaps my omission to explain it to the audience that was going to read the report, it is referred to in the various references I put in that it is commonly found in sewers. But I don’t then go on to give a detailed explanation of why the gas might rise up the soil stack.”

62. I have looked at this point carefully but think it would be unfair to criticise Mr Muston for failing to fully explain the mechanics by which he believes the gas entered the flat. As would be expected, his report begins by analysing the claimants’ case. He then proposes the release of sewer gas as an alternative explanation. He opined that the removal of the pipe opened the kitchen to gases and smells downstream. He pointed out that the other flats would be protected by functioning traps, explaining why only number 18 was affected. He relied upon the papers his research had found. He explained in the witness box that he drew upon basic principles of physics and engineering in concluding that it was plausible that sewer gas had entered the flat. He made the point that he was not asked to address questions as to how the gas could have risen and entered the premises at the time of preparing the Joint Statement. Mr Thomas had not challenged him on this.
63. As I observed to Mr Maskrey QC, the claimants might have put questions to Mr Muston pursuant to CPR 35 but did not do so. Mr Maskrey QC responded that the timetable was somewhat truncated resulting in little time for that course to have been adopted. I accept that. I note the expert reports were finalised close to trial. I am not critical of the claimants or their representatives for not raising questions in advance, but neither do I think Mr Muston bears the responsibility for the fact that he did not address the detail of how sewer gas might have entered the flat until questioned at trial.
64. Mr Muston explained that, given the right conditions, the hydrogen sulphide could be pushed up the soil vent stack by convection. The key factor would be a differential in temperature caused by cold air entering the stack and driving down, causing warmer air to rise. Mr Muston suggested that this convection effect would occur for a limited time and then fade away once colder air had filled the stack. Mr Muston readily conceded that it was impossible to know what the temperature differential might have been. However, the fact that the event occurred on a winter’s night when the temperature outside could have been expected to be falling would fit. The use of the waste system by flushing a toilet or running a sink for example would be likely to break the convection effect. While it would be unusual, conditions could exist which allowed a pocket of hydrogen sulphide to rise up the stack. If the pipe that was removed was close to the stack (and Mr Muston thought it may well have been looking at the photographs) the gas being drawn up the stack could take the path of least resistance and divert through the opening into the flat.
65. It was put to Mr Muston that if his theory was correct, the gas would not have dropped off in the way that it did prior to the arrival of the emergency services. He did not accept that. He explained that the process he was describing was likely to be time limited. The whole process of circulation could develop in minutes rather than hours and would stop as the air temperatures balanced. Equally, as described in the literature,

it is possible to get a ‘pocket’ of gas which is ‘swept out’. Mr Maskrey QC put to Mr Muston:

“So crucially for your theory to work you have to postulate that at the same sort of time as Mr Gbadegeshin was in the kitchen, there was sufficient movement of air within the sewer to blow effectively all of a concentrated accumulation of hydrogen sulphide up the stack?”

Mr Muston replied:

“That’s essentially how these things work, yes.”

66. Mr Maskrey QC suggested that this was an incredible coincidence. Mr Muston agreed. In effect, it involved terrible timing. Mr Gbadegeshin happened to remove the pipe, perfectly properly and with no way of knowing that there was anything untoward, at the very moment that the gas had collected up the stack such that it could be released into the kitchen when the pipe was opened. Mr Muston made the point that events such as this are so rare because of the need for the coincidence of opening the plumbing at the precise time that the particular conditions exist. He said that it is a risk that is always there but that it is one that is very unlikely to materialise.

67. Mr Thomas maintained that he found it very difficult to see how hydrogen sulphide could have got to the flat from the sewer. Even if it could get to that point, he could not see how it could all “miraculously disperse just by opening the pipe”. Asked if he regarded the sewer gas theory as feasible or plausible, he said:

“I honestly can’t see how it would occur. If there were signs of it elsewhere, perhaps.”

Mr Thomas did accept in the course of his evidence that it was possible that hydrogen sulphide could be generated and it was possible it could be drawn upwards. However, he said there was no real reason why it would preferentially enter one flat. In my view, this ignores the removal of the pipe, which created an opening which did not exist in the other flats. Mr Thomas later accepted that:

“If you open up an opening then a proportion of whatever is moving will always divert ... a bit like a stream in a river basically.”

68. I also note that when Mr Carslaw was asked about the defendant’s theory that the hydrogen sulphide emanated from the sewer system, he said:

“Any gases within the public and private systems are vented through vented covers, vent columns and vented soil stacks. Waste assets within properties are also protected by water traps preventing any internal venting occurring.”

69. I have considered carefully all the points made on behalf of the claimants. There was no ‘knockout blow’ such as to provide a basis for discounting Mr Muston’s theory that it was possible for the hydrogen sulphide to have been generated in the sewers, to have

been pushed up the stack and to have escaped into the kitchen when the pipework was opened. I did not understand Mr Thomas to be wholly refuting the possibility that this could have occurred, albeit he could not conceive how it did happen.

70. In my judgment, Mr Muston's evidence was scientifically sound, and remained so after appropriate but robust challenge under cross-examination by Mr Maskrey QC. His theory was underpinned by his expertise as a chemical engineer. While I fully accept that Mr Thomas is qualified to comment on the properties and movement of gases, I considered that Mr Muston's qualifications and professional experience better equipped him to deal with this particular issue. Having seen and heard them both give evidence, where there were differences of opinion, generally I preferred the evidence of Mr Muston. I find that Mr Muston's theory is also consistent with the reports of the other tragic events to be found in the literature. While I recognise that the reports we have were written by those with medical / toxicological expertise rather than chemists / engineers, the clear conclusion in each case was that a pocket of hydrogen sulphide had been released from the waste system in the course of attempts to unblock a sink mechanically.
71. I also find that Mr Muston's theory is consistent with the sequence of events. I have found that Mr Gbadegeshin removed the pipe after returning to the kitchen, having previously used the One Shot. It was the removal of the pipe that preceded his collapse, consistent with that rather than the use of One Shot being the causative event. Even if I was wrong about the time when the pipe was removed, the known facts do not assist the claimants. The evidence is clear that Mr Gbadegeshin applied the One Shot then left the kitchen to go to the living room where he spoke to Mr and Mrs Ayannuga. He told them he was leaving the One Shot to work. He chatted to Mr Ayannuga for a while before returning to the kitchen. It was then 'several minutes' before the noise was heard and he was found to have collapsed. This suggests that quite some time passed between the One Shot being used and Mr Gbadegeshin's collapse. Indeed, if Mrs Ayannuga is right that he arrived around 9pm, the timing of the 999 call would suggest he had been working in the flat rather longer than she suggested and that she has perhaps truncated the periods between events, further distancing the use of the One Shot from the collapse of Mr Gbadegeshin.
72. Mr Muston suggested that once the One Shot was poured down the drain on top of lime sulphur, it would take 30 seconds to one minute for a reaction to occur. If lime sulphur had been present, there would have been effervescence and the gas would have been produced. It would rise up through the plughole and come out of the sink "very quickly". While Mr Muston was unable to help as to how quickly the gas would spread through the room, it seems to me that it is unlikely that Mr Gbadegeshin would have been able to leave the kitchen, spend some time chatting to Mr Ayannuga, then return to the kitchen and spend a further few minutes presumably in the vicinity of the sink before he collapsed. I do not say that the timings could not possibly fit with the claimants' case that the release of the gas was caused by the use of the One Shot. However, I do consider that the sequence of events is significantly more consistent with the removal of the pipe being the causative factor. In saying that, I bear in mind Mrs Ayannuga's evidence that she detected an odour before Mr Gbadegeshin returned to the kitchen but this was not strong and she does not describe the distinctive smell of hydrogen sulphide that Oluwaferanmi described later.

Conclusions on causation

73. I conclude that the claimants' case that lime sulphide had been poured down the sink after it became blocked is implausible. On the other hand, the defendant's theory that sewer gas escaped from the waste system when Mr Gbadegeshin removed the pipe is scientifically sound and is consistent with what is thought to have occurred in other tragic and rare instances. It required the existence of particular conditions at just the moment the pipe was opened. That such conditions existed was incredibly unlucky and was not something that would usually occur. However, Mr Muston's evidence provides a plausible explanation for what occurred. The sequence of events further supports the probability that the trigger for what happened was the opening of the pipework rather than the use of the One Shot. In all the circumstances, I find as a fact that the hydrogen sulphide was not produced as a result of the use of One Shot. Rather it resulted from an escape of sewer gas when the pipe was removed. The use of One Shot was therefore coincidental and did not make a material contribution to the death of Mr Gbadegeshin or the injuries sustained by any of the claimants.
74. That finding is sufficient to dispose of this claim. Since I have found that the One Shot was not the cause of the hydrogen sulphide, the claimants cannot prove that the relevant damage was caused or contributed to by a defect in the defendant's product. The claim must therefore be dismissed. In such circumstances, I propose to deal with the issue of whether the product was defective fairly briefly.

Was the product defective?

75. The claimants' pleaded case on defect was:

"The product was 'defective' for the purposes of the CPA/Directive in that the safety of the product was not such as persons generally are entitled to expect, in that persons generally do not expect the Product, when used normally, to produce a highly toxic gas in sufficient quantity to cause death or serious injury and whether by reacting with other substances or otherwise."

The Particulars of Claim asserted that the precise nature of the chemical reaction that ensued from the use of the One Shot was "unknown and unknowable" and stated:

"It is the claimant's case that if the product produced fumes that were in fact toxic in nature and capable of causing serious injury and death then the product was defective."

76. At trial, the claimants' case remained that if the use of One Shot did give rise to a lethal concentration of hydrogen sulphide when being used for the purpose for which it was sold, then it was defective within the meaning of the Act. It was not alleged that there was any abnormality with the particular bottle of One Shot used such that it was less safe than other batches or other similar products.
77. By trial, the claimants' case had crystallised so that it was no longer asserted that the precise nature of the reaction was unknowable. It was conceded that realistically the only way sufficient hydrogen sulphide could have been produced was if the One Shot

was combined with lime sulphur. In their written closing submissions, Mr Maskrey QC and Mr Korn suggested that the issue had become whether the product was defective because it *does* combine with lime sulphur to create hydrogen sulphide.

78. There was no significant dispute about the legal principles that apply when considering whether a product is defective within the meaning of the Act. These principles are conveniently considered and summarised at paragraphs 53 to 107 of *Wilkes*, and I have them in mind. The question of whether the safety of a product is such as persons generally are entitled to expect involves an objective approach, having regard to all the relevant circumstances. Safety is necessarily a relative concept.
79. It is plain from the evidence before me that hydrogen sulphide is a very dangerous gas. Just one breath can be lethal. A high concentration causes olfactory paralysis, extinguishing the perception of the strong odour of the gas, before loss of consciousness rapidly follows. Therefore, anything that gives rise to the production of hydrogen sulphide will present a significant risk to life.
80. The outer carton containing the One Shot was clearly marked “HAZARDOUS CHEMICALS”. A pictogram identified it as sulphuric acid with the warning that it is corrosive. The bottle also identified that it contained sulphuric acid (with the concentration stated). There was a warning on the box: “DO NOT USE WHERE OTHER CHEMICALS ARE PRESENT (PARTICULARLY CAUSTIC OR HYPOCHLORITE BLEACH).” The user was warned to read all label precautions and directions completely before use. As Mr Maskrey QC pointed out in the course of his submissions, there was no warning about the inhalation of fumes. The only warning symbol related to the corrosive nature of the product. That is a separate danger and a warning about that would not assist in the circumstances under consideration. Mr Mounce’s evidence was that the warnings to be carried on the packaging were subject to regulatory control and it was not open to the company to deviate from the requirements. A third party consultant was engaged to ensure regulatory compliance. The claimants do not dispute that the product and its packaging complied with the regulations then in force.
81. It is right, as submitted on behalf of the claimants, that a simple mixing of relatively modest amounts of One Shot and a lime sulphur solution rapidly produces lethal gas. I also accept that is something generally unknown by members of the public. However, what is generally known and is reinforced by the warnings on the packaging is that sulphuric acid is a dangerous substance in respect of which care must be taken. It is common knowledge that strong acids react with other chemical substances to produce all sorts of reactions, some of which will be dangerous.
82. The public are entitled to expect that a drain cleaner will not react dangerously with substances which it could be anticipated would be in a blocked sink or other domestic drain. If, as was initially theorised on the claimants’ behalf, the lethal gas resulted from One Shot coming into contact with foodstuffs and other normal detritus of washing up, there would be a strong case for saying that the safety of the product was not such as persons generally are entitled to expect. However, that is no longer the claimants’ case. It would be artificial to consider whether there is anything the defendant might have relied upon to avoid liability in such circumstances, since the state of the evidence generally would inevitably have been different. I have already indicated that I was not impressed by Mr Mounce’s evidence and his apparent lack of concern about the inquest

findings and the surprising lack of investigation thereafter. Had I found that the lethal gas had been caused by a reaction between One Shot and things normally to be found down a sink, I suspect the defendant would have found it very difficult to argue against liability under the Act.

83. In relation to lime sulphur, the position is different. It is right that lime sulphur is readily available to consumers and comes in a form that enables it to be poured into a drain. There is no prohibition on pouring lime sulphur into a domestic drain. However, as demonstrated in this case, the circumstances in which One Shot would mix with sufficient lime sulphur to produce a dangerous quantity of gas would have to be highly unusual. It involves something more than contact with traces of a lime sulphur solution, such as might arise from the use of a product before the drain became blocked. As Mr Thomas conceded it effectively requires the lime sulphur solution to be poured into the already blocked sink. It is very hard to see how or why that would occur. The nature of products containing lime sulphur does not suggest any reason why consumers would use them thinking they might unblock a drain. By contrast, the use of caustic or hypochlorite bleach could be anticipated, hence such products are specifically referenced on the One Shot labelling. There is a clear general warning not to use One Shot where other chemicals are present. In my view, the inherent strong unlikelihood of contact with lime sulphur in normal use, together with the clear markings identifying it as containing hazardous chemicals (specifically a strong concentration of sulphuric acid) and the warning not to use where other chemicals are present, meant that the product was not unsafe within the meaning of the Act.

Conclusions on defect

84. In simple terms, the claimants' pleaded case on defect has failed because they have not established that the product did in fact produce the toxic fumes. However, even had I found that the gas resulted from the mixing of the One Shot with a lime sulphur solution as alleged by the claimants, having regard to all the circumstances, I would not have found that the safety of the product was not such as persons generally are entitled to expect.

Final conclusions on the preliminary issues

85. It follows that I answer both questions posed as preliminary issues in the negative. The product is not deemed to be defective under the Act and it was not the cause of the tragic events. In the circumstances, the claim must be dismissed.

Concluding remarks

86. As I indicated at the start of the trial (echoing what Mr Moody QC said on behalf of the defendant), the Ayannuga family have my utmost sympathy. I extend that sympathy also to those who mourn the loss of Mr Gbadegeshin. I know the trial was not easy for Mrs Ayannuga and the outcome will be bitterly disappointing. The claimants may be able to take some small comfort from the fact that their case was expertly presented and argued, allowing for the full exploration of the cause of the terrible events on 1 January 2015. My conclusion is that what happened was a tragic and unforeseeable accident and that the use of the One Shot that evening was coincidental. Finally, I record my thanks to all counsel and solicitors involved for the skill, efficiency and sensitivity with which this case was conducted on both sides.