

# Ripped chemical bags added to risk of Beirut blast



Enlarge / A view of the Port of Beirut on August 13 after a fire at a warehouse with explosives led to massive blasts on August 4.

Aysu Bicer/Anadolu Agency via Getty Images

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Lebanese officials knew that more than half the bags of a 2,750-ton stockpile of ammonium nitrate that caused a deadly explosion in Beirut were damaged six years ago but took no action to dispose of the chemical.

A 2014 inspection report by Beirut port authorities, seen by

the Financial Times, labels the chemical as “explosives” and said that 1,950 of the 2,750 one-tonne bags filled with the chemical were “torn.” Photos of the stockpile taken the following year, also seen by the FT, show the huge sacks appearing to be stacked haphazardly on top of each other and ammonium nitrate spilling from large rips in the industrial bags.

The evidence will increase concerns that negligence and poor management were the root cause of the blast at the port, which killed more than 170 people and devastated the capital. Prime Minister Hassan Diab blamed “political corruption” for the tragedy as he resigned on Monday.

The ammonium nitrate, which can be used in fertilizers and as an explosive, was stored at Beirut port, on the northern tip of the capital, for six years after the load was impounded by Lebanese authorities.

Andrea Sella, professor of inorganic chemistry at UCL, the London university, said that when ammonium nitrate, which is manufactured as small white balls known as prills, is stored in bulk for long periods, it absorbs moisture, gradually crystallizes, expands and becomes “compacted like a large rock.”

This makes it a “loaded bomb” without a detonator. An initial fire at the port, which was captured by videos posted on social media, is likely to have provided the trigger, he said.

“The bags could have been damaged when they were offloaded, but chances are they were damaged because the ammonium nitrate crystallized and expanded and the bags were likely to be put into contact with each other, which would create a continuous, solid mass,” Sella said. “It makes it more dangerous and makes it easier for the explosion to travel through the material. It makes it a much more intense explosion—it all goes up in one go.”

He added it was “a high priority” to dispose of ammonium nitrate if it was damaged.



Enlarge / Women walk past a damaged car on August 13, a week-plus after the Port of Beirut explosions. Getty’s suggested caption describes the streets of Beirut as “just like war zones with the destroyed buildings, shattered roads, smelly garbages scattered almost everywhere.”

Aysu Bicer/Anadolu Agency via Getty Images

Lebanese authorities, who are conducting an investigation into the blast, have yet to give an explanation as to why it was stored at the port, close to the heart of Beirut, for so long.

Adib Ibrahim, a chemical engineer at Geoflint, a Lebanese engineering geo-environmental consultancy, said that after six months the chemical “should have been classified as hazardous waste” and shipped to another country that has the capacity to dispose of toxic waste.

If that was not possible, the ammonium nitrate should have been “deactivated/decomposed” by heating it to more than 169°C, before being “sealed and sent to a designated

landfill,” Mr.Ibrahim said.

The ammonium nitrate was offloaded at Beirut’s port in 2014 after a ship that had set sail from Georgia and was bound for Mozambique ran into trouble in the Mediterranean Sea. The Rhosus and the crew docked in Beirut, where they got caught up in months of legal battles over debts and unpaid fees related to the vessel.

Fábrica de Explosivos de Moçambique, which specialize in explosives for commercial use, said it had ordered the chemical through Savaro Ltd, which appears to be a UK-registered company that has offices in Cyprus. FEM said it would only have paid for the cargo on delivery.

“This was a standard order, of a material that we use in our commercial activity, always fulfilling all legal requirements and the best international practices in a scrupulous way,” the Maputo-based company said.

Ammonium nitrate is produced in different grades with the higher nitrogen content used for explosives, the lower purity for fertilizers. The stock at the port was almost 35-percent nitrogen, a customs chief told the Lebanese army in late 2015, a leaked official letter shows.

Sella said that level of nitrogen corresponded to “explosives grade stuff.”

“It needed to be treated with significant respect,” he said.



Enlarge / A man tries to fix an electricity cable on the damaged roof of an apartment block facing the Beirut port on August 13, 2020.

Chris McGrath/Getty Images

It was not immediately possible to contact Savaro, which appears to have no website. Its last registered office in the UK is on a short residential street in east London. The building displayed no company signs, a locked metal security gate covered the front door, and nobody answered when the FT visited the address.

Lebanon's "urgent matters court," which typically deals with minor civil and commercial cases, had ruled in mid-2014 that the ammonium nitrate should be offloaded from the foundering vessel and stored at Beirut port, out of concern that its "dangerous" cargo might contaminate the sea and cause environmental damage, according to documents seen by the FT.

The court advised that the public works and transport ministry was responsible for storing the goods in a "suitable place" and said it did not have jurisdiction to sell the ship or its contents. All ministers of public works since 2013 are set to

be questioned in the blast investigation, said a government spokesperson.

In January 2015, Joseph Kareh, a Lebanese lawyer acting on behalf of Savaro, wrote to the urgent matters court asking it to investigate the state of the ammonium nitrate bags. The letter, seen by the FT, said the ammonium nitrate was incurring storage charges for Savaro.

The court then commissioned a report by a chemical expert, which also mentioned that 1,950 of the bags containing the explosive material were damaged, but did not identify them as dangerous. Mr.Kareh said he could not comment because of the investigation.

The FT was not immediately able to find records of further legal action by Savaro to retrieve the cargo after 2015. UK company records show that since incorporating in 2006, Savaro has frequently filed accounts as a “dormant” firm.

Savaro’s manager, Greta Bieline, a Lithuanian national, is the director of eight Cyprus-based companies registered in the UK, only three of which are still active. It was not immediately possible to contact Ms. Bieline. When contacted by Reuters news agency, she declined to answer questions.

Customs officials, some of whom have been detained for questioning by Lebanese military police investigating the blast, have said that they warned about the deadly explosives stored at the port multiple times.

Normally when goods are left unclaimed in the port for six months, the customs authorities have the right to impound them and after a further three months, sell the goods at auction. But the ammonium nitrate stayed in the port warehouse for six years.

There appeared to be renewed interest by Lebanese authorities in the stockpile earlier this year. In January, the director-

general of state security requested an investigation into the ammonium nitrate, according to a government spokesman. The request led to an exchange of correspondence between judges and government officials, but the prime minister's office said it was only told about the neglected chemicals two weeks before the explosion. Lebanon's president, Michel Aoun, has said he was also informed about the stockpile this year.

A report compiled by the state security agency, which was sent to the prime minister's office weeks before the blast, said the warehouse where the ammonium nitrate was held was "intended for preserving dangerous materials." It criticized Beirut port for "negligence" in securing the warehouse, risking the "theft of dangerous materials."

The port authorities did not respond to a request for comment.

*Additional reporting by Asmaa al-Omar in Istanbul, Joseph Cotterill in Johannesburg, Michael Pooler in London.*

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