

---

## Methanol poisoning

---

### 1. Purpose

- 1.1. This Safety Alert is issued by the Bahamas Maritime Authority to highlight the dangers of accidental consumption of methyl alcohol. It is based on the findings of a preliminary investigation into the death of a crew member.

### 2. Introduction

- 2.1. A Bahamas flagged tanker was at anchor, awaiting a berth to discharge its cargo of crude oil, when the 49-year-old pumpman was found dead in his cabin. The initial assumption was the death was from natural causes. The master conducted alcohol tests on all crew members as a routine procedure, and all results were negative.
- 2.2. The vessel berthed that evening and the pumpman's body was taken ashore after local police conducted a scene examination. Shortly afterwards, the chief officer reported feeling unwell and an ambulance was called.
- 2.3. Tests conducted at the hospital indicated the chief officer was suffering from methanol poisoning. The chief officer later confirmed that he had taken a drink from a bottle offered by the pumpman, believing it to be alcohol he had brought onboard from home. The pumpman's autopsy indicated methanol poisoning as the cause of death.

### 3. Methanol

- 3.1. Methanol, also known as methyl alcohol or wood alcohol, is a colourless organic alcohol with a mild alcoholic odour. It is commonly used as a solvent, fuel or antifreeze in the chemical industry. Methanol is not toxic but, when ingested, it transforms into formaldehyde which rapidly metabolises to become formic acid. Formic acid is highly toxic and can cause multiple organ failure, blindness, brain damage, or death.
- 3.2. Most methanol poisoning incidents happen as a result of ingesting adulterated alcoholic drinks. Methanol, along with ethanol<sup>1</sup>, is produced during the brewing process and is concentrated by distillation. It is also possible for high levels of methanol to be produced by contaminating microbes.
- 3.3. The severity of symptoms caused by methanol poisoning correlates directly with the amount of methanol consumed and whether it was consumed with ethanol. If a mixture

---

<sup>1</sup> Ethanol is the "alcohol" in beverages like wine and beer and is generally safe in moderation.

of ethanol and methanol is consumed, it can be days before symptoms appear (essentially when no ethanol is left in the body). As little as 10ml of methanol can cause blindness and 30ml or more can be fatal.

- 3.4. Methanol poisoning can result in symptoms which are similar to other medical conditions. Poisoning victims may not be aware of the nature of the poisoning or may not want to disclose their full history for fear of the consequences. Delay in treatment caused by a misdiagnosis is dangerous as recovery is dependent on how quickly treatment is initiated. If left untreated, symptoms typically evolve into visual disturbances, coma, brain damage, and death.

#### **4. Zero tolerance alcohol policies**

- 4.1. The Company operated a zero-alcohol policy and conducted regular announced and unannounced drug and alcohol tests. Company policy dictated that all crew members should be tested for alcohol immediately after an accident. Regardless of the established drug and alcohol policy, not only did at least one crew member have a supply onboard, this was known to at least one senior officer.
- 4.2. There are numerous marine safety investigations that have highlighted the danger of alcohol abuse onboard ships, but a zero alcohol and zero tolerance policy can contribute to seafarers' social isolation.
- 4.3. The seafarer that died is thought to have had an undisclosed alcohol dependency. The reasons behind substance use can be complicated and bans can drive hidden consumption. As well as having a well-defined drug and alcohol policy which encompasses preventive and supportive measures, a testing programme and disciplinary actions; it is crucial to foster an environment where individuals feel supported and comfortable seeking help to manage this risk effectively.

#### **5. Further reading**

- 5.1. This is not an isolated occurrence in the industry. The Liberia Registry recently reported five fatalities due to ingestion of hazardous liquids including intentional consumption of hand sanitizer and mineral spirits due to lack of access to alcohol and consumption of counterfeit alcohol purchased from unauthorized sources. See: [www.liscr.com/marketing/liscr/media/liscr/online%20library/maritime/marine-advisory-23\\_2025.pdf](http://www.liscr.com/marketing/liscr/media/liscr/online%20library/maritime/marine-advisory-23_2025.pdf)
- 5.2. Medecins sans Frontieres (MSF) and Oslo University have set up the Methanol Poisoning initiative, looking at mechanisms to improve the survival of methanol poisoning patients globally. See: <https://methanolpoisoning.msf.org/en/>
- 5.3. The OCIMF Guidelines for the Control of Drugs and Alcohol in the Maritime Industry provide guidance on developing a drug and alcohol policy, where operators can refer to

standards, and suggestions for effective procedures onboard, aligned with standards and policies. See: [www.ocimf.org/publications/information-papers/guidelines-for-the-control-of-drugs-and-alcohol-in-the-maritime-industry](http://www.ocimf.org/publications/information-papers/guidelines-for-the-control-of-drugs-and-alcohol-in-the-maritime-industry)

- 5.4. The Sailors' Society's Wellness at Sea programme provides a range of wellness resources to seafarers, their families and shipping companies. See: <https://sailors-society.org/maritime-industry/wellness-at-sea-an-introduction/>

## **6. Validity**

- 6.1. This Safety Alert is valid until further notice.