

“SPEAK OUT” – The ZNPFI speaks against Methanol Poisoning

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Given the recent reports of methanol poisoning, I thought we should dedicate this edition of ‘SPEAK OUT’ to inform and educate the public on this unfortunate situation. As of June 12th, 2024, multiple poisoning events linked to methanol had been reported in Zambia's Southern, Central, Northern, Lusaka, and Western Provinces. People from different communities in these regions have been consuming concoctions primarily made of water, methylated spirit, and a sweetener, usually diluted juices such as Jolly Juice. These concoctions have been given various names in different communities, including “Chimota”, “D1 Kasosolo”, and “Subilani” Beer. By that date, over 200 cases had been reported, with around 80 deaths, most of which occurred in May. By July 2024, the

number of cases, deaths, and affected provinces continued to rise. Various health entities have been working to raise awareness and respond to these tragedies as best as they can, but they face significant challenges. Unfortunately, there is no easy fix for this type of poisoning, especially after the damage has been done.

Methanol poisoning, also known as methylated-spirit poisoning, occurs when a substance containing methanol is ingested. Methanol, sometimes referred to as methyl alcohol or wood spirit, is an organic chemical compound with the formula CH_3OH . This means it consists of a single carbon atom bonded to three hydrogen atoms (CH_3) and a hydroxyl group (OH). Methanol is a colourless liquid that easily catches fire, has a dis-

tinct alcoholic odour, and is volatile—meaning it readily evaporates from liquid to gas at room temperature.

Although methanol is colorless, it is often seen as a purple or blue liquid because it is dyed with methyl purple during manufacturing to help distinguish it from other alcohols, such as ethanol. This color change, along with the addition of a foul smell, is intended to make methanol appear unsafe to drink, thereby discouraging consumption. Methanol is readily available in shops and various convenience stores and is commonly referred to as 'Spirit.' Its volatility makes it a popular choice for starting fires.

Consuming methanol can have severe effects on the body, leading to cell failure and even nervous system damage. The toxic dose depends on the concentration and the timeliness of treatment. Unfortunately, treatment is difficult to obtain and, when available, is extremely costly; the damage caused by methanol poisoning is often irreversible. To give you an idea of the danger: as little as 30 ml (about a mouthful) is considered the minimum lethal dose for an adult of a certain weight, and just 10 ml (a tablespoon) can cause blindness. Some of the symptoms experienced by victims include diarrhea, vomiting, blurred vision, restless-

ness, and in some cases, sudden onset blindness before succumbing to illness and organ failure. Once methanol enters the body, it is converted into formaldehyde and formic acid, both of which are highly toxic and potentially fatal in large amounts. This conversion can lead to metabolic acidosis, a condition where excess acid accumulates in the body.

Some of the information is drawn from how other communities have identified and dealt with methanol poisoning. Samples have been collected from various communities and sent to the University Teaching Hospital (UTH) for further investigation and guidance on the next steps. Drinking methanol is an uncommon form of poisoning that can cause severe metabolic disturbances, blindness, permanent neurological dysfunction, and death. While methanol itself may seem harmless, once inside the body, it is converted into formaldehyde and formic acid, both of which are highly toxic and potentially fatal in large amounts. This can lead to metabolic acidosis, a condition where excess acid builds up in the body. Factors contributing to this condition include the accumulation of body toxins, kidney failure, and the ingestion of certain drugs, such as large doses of aspirin. It can also be a rare complication of diabetes. Symptoms of metabolic acidosis include nausea, vomiting,

rapid breathing, and lethargy, which may explain some of the symptoms experienced by victims in our local communities.

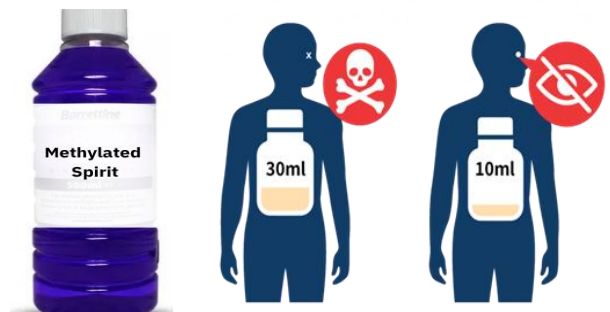
Although different brands of methylated spirit are being used in the communities, they are all harmful to the body regardless. In Southern and Western Province, a new brand on the market called ‘Beautiful’ was used while a premium Quality methylated spirit is being used in Central Province. Whether it is a purple dyed spirit or colourless as its natural state, it should not be consumed. Efforts to manage the situation include:

- **Sensitization:** Local leadership and influential community members are raising awareness and encouraging safe drinking behaviors.
- **Intersectoral Collaboration:** Various sectors, including law enforcement, education, and community organizations, are working together to implement a comprehensive response.
- **Clinical Engagement:** Healthcare staff are being trained to raise the index of suspicion and identify potential cases more effectively.
- **Regulatory Measures:** Provinces are collaborating with local authorities to

strengthen licensing requirements for alcohol vendors and increase monitoring to prevent the sale of unsafe products.

Given this information, we hope you understand why this is a serious issue. The best way to prevent methanol poisoning is to **COMPLETELY AVOID CONSUMPTION**. If you have or know anyone who has taken methanol, please go to the nearest health facility **IMMEDIATELY**. Do not wait to start experiencing symptoms.

We strongly advise everyone to completely avoid drinking substances containing methanol. It is extremely dangerous and can be deadly. Avoiding it at all costs is the best form of prevention. If you see something, say something, and help save a life. Thank you for considering our position on this matter. Should you require any further information or assistance, please do not hesitate to contact us at info@znphi.gov.zm.



As little as 30 ml of dyed methylated spirit shown on the left can be lethal dose.