

# Safety alert

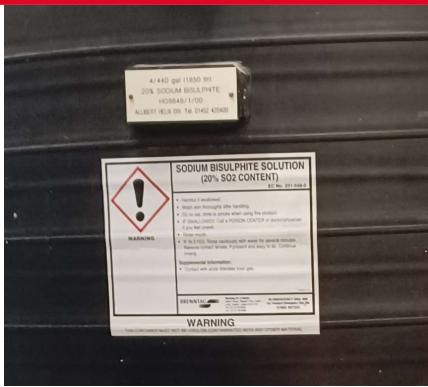


October 2024

## Sodium Bisulphite

### What happened?

A Water Quality sampler noticed a strong chemical smell when taking a sample in a room containing a sodium bisulphite tank and dosing pumps. They experienced symptoms including cough, runny nose and shortness of breath that continued after 30 mins, so they went to hospital to get checked out.



ABEK filters



Short-term exposure limit  
1ppm

Long-term exposure limit  
0.5ppm

Sodium bisulphite can produce sulphurous vapours including sulphur dioxide when not kept fully contained.

Sulphur dioxide has a Workplace Exposure Limit (WEL) defined in the HSE publication EH40:

- Short-term exposure limit (STEL): **1ppm** (over a 15-minute reference period)
- Long-term exposure limit (LTEL): **0.5ppm** (over an 8-hour reference period)

Breathing in sulphur dioxide causes irritation of the nose and throat. People with asthma may be more sensitive to the effects.

### What do I need to do?

The reasons for the release of sulphur dioxide in this incident are still being investigated, and learning will be shared when the investigation is complete. In the meantime:

- If you need to enter a room or building containing sodium bisulphite, you should carry a **Crowcon Gasman** personal gas detector with an SO<sub>2</sub> sensor – this will alert you if the levels of sulphur dioxide in the area are approaching the exposure limit.
- If the gas detector alarm activates, you should leave the area and move to fresh air.
- If the room is supplied with a ventilation system, ensure this is turned on and working.
- If the ventilation system does not reduce the level of sulphur dioxide in the area, **respiratory protection** with an **ABEK filter** must be worn by anyone entering the area.
- Please note: for **tight fitting** respiratory protective equipment, a **face-fit test** will be required to ensure a good seal.
- Report any leaks on sodium bisulphite systems - repair and clean-up to be arranged ASAP.

**Please contact a member of the H&S team for details on where to order a Crowcon Gasman SO<sub>2</sub> detector, or for advice on suitable respiratory protection for use in sodium bisulphite rooms.**

**AffinityWater**

# Safety alert



March 2024

## What does this mean for us?

*Have a discussion about the learning with your team then use this section to note down anything you might need to do differently, or any actions you need to take as a result. You can then retain this as a record to demonstrate learning and improvement.*

**Important note:** Please make sure you register your briefing on EcoOnline, by completing an Observation and selecting the classification 'SHE Alert'.

Names of people briefed	Names of people briefed