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Broken Max Min Thermometer

Posted by Anonymous on Thu, 2017-08-24 11:04

Broken Max Min Thermometer: We have some max min mercury thermometers here, and yesterday one of them was broken by a cleaner. The broken thermometer gives off an overpowering odour, it was extremely strong and resulted in the evacuation of an office as we couldn't initially identify where the smell was coming from. It smells like something is burning and the office is still very smelly today as some of the liquid spilled onto the carpet. We have used mercury decontaminant to neutralise any mercury that may have spilt and will dispose of the thermometer via a licensed waste contractor.

Mercury is obviously odourless, so we are wondering what the smell might be? Is it something we need to be concerned about in terms of people breathing in the fumes? There is no manufacturer labelled on the thermometers, so we don't have a contact to ask for an SDS.

The only thought we have had is perhaps the thermometer also contained an alcohol or solvent of some kind that gives off an odour, but none of our science teachers know what it could be. I have done a little research and thought perhaps it could be Oil of Creosote?

Thank you.

Voting:



No votes yet

Year Level:

7

8

9

10

Senior Secondary

Laboratory Technicians:

Laboratory Technicians

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Broken Max Min Thermometer

Submitted by sat on 09 September 2017

Answer reviewed 27 February 2023

Regarding the clean-up of the broken thermometer, we have the following comments:

- We are not sure what the overpowering odour was, but your emergency response was correct to evacuate the affected room, especially if the fluid in the bulb was creosote which was the case with some of the older model maxima minima thermometers.
- As your research has shown you, more recent maxima minima thermometers usually have an alcohol in them and without having access to the manufacturers' information, it is difficult to know, what the fluid actually is.
- We have previously answered some questions regarding the clean-up of mercury. For detailed information please see
 - [Mercury Spills](#): disposal of mercury
 - [Mercury Thermometer](#): disposal of mercury thermometers
- Given that mercury and an unknown alcohol or solvent has spilled onto carpet, which is a porous material, it will be considered hazardous waste and should be removed and disposed of. You may need to get some professional assistance with this.
- Different states have different government organisations that may be able to help you. For example, the NSW Office of Environment and Heritage has a webpage dedicated to this type of question see <https://www.environment.nsw.gov.au/questions/broken-mercury-thermometer-...>
- If you have several intact similar thermometers, it may be wise to dispose of them as well via a hazardous waste disposal contractor, to prevent a repeat of this incident.
- When replacing thermometers, we recommend purchasing non-mercury thermometers.

References

NSW Department of Planning and Environment, (2019, November 13), *I have broken a mercury thermometer. How do I clean up the spill?*, Retrieved from the NSW Department of Planning and Environment website. <https://www.environment.nsw.gov.au/questions/broken-mercury-thermometer-...>

Oxford University Press (2023), Six's thermometer, Retrieved from the Oxford Reference Website: <http://www.oxfordreference.com/view/10.1093/oi/authority.20110803100509453>

Syvum Technologies "Physics Theory: Thermometers". Syvum Technologies website: <https://www.syvum.com/cgi/online/serve.cgi/squizzes/physics/thermometers...>

The free dictionary (2003/2005) Six's thermometer, Retrieved (27 February 2023) from The free dictionary website. <http://encyclopedia2.thefreedictionary.com/Maximum+minimum+thermometer>

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