

Environmental Health: Emergency Response to Sodium, Oxhill Road Handsworth

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What is Sodium

- Sodium is an element
- Sodium is a soft white metal which can be cut using a knife
- It is highly reactive and not normally found in its metal form, unless stored under oil
- Common compounds include Salt (Sodium Chloride)
- If you put sodium in water https://youtu.be/ODf_sPexS2Q?t=32

The Garage



Thursday 7th November 2019

- WM Fire Service are called to a fire in a garage off Oxhill Road, Handsworth, Birmingham.
- On attendance the WMFS establish the fire has gone out but a 200litre barrel has exploded ejecting material onto Windermere Road
- Specialist advisors to WMFS advise the chemical is Sodium.



210 L Steel Blue Plain UN
Approved Open Top Drum with
Bung

Response



- 8 Fire engines Attend
- Police set up a 200m cordon
- BCC Emergency Response Officers attend
- 21.00hrs
Environmental Health requested to provide a specialist Chemical company

Unfolding Information



- There are 30 Barrels
- Some are double stacked
- The garage is leaking rainwater and this has rotted the barrels. Water entered a barrel and this lead to the explosion and the ejection of sodium from the garage.
- The fire service have coved the barrels with tarpaulin.
- It isn't raining....at the moment!

The Scene



Specialist Chemical Company



- Adler and Allen a specialist waste company are engaged to assist in removal of the drums of Sodium
- 22.30hrs Environmental Health serve a notice on “the owner” of Oxhill Road to abate the Statutory Nuisance
- 23.15hrs Chemist arrives on site

Clear-up



- Chemical waste transport company based in London
- Over barrels required
- Sodium to go to 1 or 2 incinerators licensed to dispose of sodium

The Clear up



- Water has to be removed
- Sodium that was ejected catches fire
 - Sodium Oxide
 - Sodium Hydroxide and Hydrogen
- Almost completed
- Most dangerous drum

Morning after the Night before



- There is WMFS foam on the road
- There appears to be cuckoo spit on the road and gardens
- A block of Sodium slightly larger than a computer mouse is found
- The road is PH 10 (strongly alkaline)

Statistics

- The service of the notice will enable BCC to put a charge on the property.
- The waste incinerators refused to take the sodium unless it is repackaged and safe to handle.
- The waste site the sodium is currently stored at has had to get an emergency variation to its licence conditions
- The total Sodium removed is 2 tonnes in weight
- In total there is thought to be <1 tonne of sodium in all of the UK
- BCC now owns the greatest amount of sodium in its metallic form in Western Europe.
- The clean up costs on the night are estimated at £25k
- Some of the sodium is in blocks around 8kg in weight
- Repackaging and incineration is likely to cost £175K
- There is no market for sodium to be sold currently

Questions?



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