



## Electric And Hybrid Vehicle Batteries

Hearing - 30/04/2024

### Questions on Notice

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The ACTING CHAIR: For NSW Ambulance and the Ministry of Health: Do we know the short-term and long-term effects associated with the exposure to chemicals and toxic gases from electric and hybrid vehicle battery fires?

PETER ELLIOTT: There are health effects for any chemical exposure. I think my colleague, Commissioner Fewtrell, would be able to provide the information specifically regarding the exposures. To be able to actually provide a succinct answer, depending on the type of chemical, if I could take the question on notice and come back to you, given the range of chemicals that potentially are involved here.

#### ANSWER

All vehicle fires including electric and hybrid vehicles can produce toxic chemicals and gases, which are the result of burnt fuel, plastic and metal. These include carbon monoxide, organic irritants, carcinogenic organic compounds, hydrogen chloride and hydrogen fluoride.

Depending on the type and extent of the exposure, the possible effects of these are eye, skin and respiratory tract irritation/injury, breathlessness, dizziness, unconsciousness, nausea, smoke inhalation, burns, asphyxiation and death.

There are variables involved in the types of toxic chemicals, gases and the composition of the smoke. The recognition that all vehicle fires produce potentially harmful substances is essential for both bystanders that might arrive first at a vehicle fire and the paramedics and other healthcare and emergency service workers who are assessing the scene and the potential complications in the patient's condition.