

Safety of Land Transport of Hazardous Materials in Poland*

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Abstract

The article describes a topic of the transport of hazardous materials in Poland. The risks during transport are presented, as well as the regulations that must be observed when transporting hazardous materials. It also discusses the basic rules that apply during an emergency. The purpose of this article is to present a simulation of the effects of gas explosion. Significant factors that determine the effects of an explosion include: spatial conditions, including mainly buildings and terrain conditions. The place that was selected for the simulation of the event is a road junction located in the area of Bielany Wrocławskie (in Poland), with particular emphasis on the A4 highway, which is crossed by over 30,000 vehicles every day. As a result, based on the ALOHA program, a hazard map was created with a division into hazard zones for people who will be at the place of the incident. A conducted assessment of the effects of this event will allow to assess what pollutants and how far they will get from the event site. Weather conditions were also included in the analysis, wind direction and speed.

Keywords: transport, hazardous substances, environment, danger, risk, highway