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Statement by the Chemical Weapons Research Consortium on September 30th, 2020

Federal DHS Agents Used Poisonous Zinc Chloride Gas Against Portland OR Black Lives Matter Protesters in July 2020

Study led by Dr. Juniper L. Simonis of Portland's Chemical Weapons Research Consortium (CWRC) reveals specific chemicals used by federal police and the nature and impact of the danger.

• [Website of CWRC](#) • [Access the full report](#)

A local grassroots science and activist organization, the Chemical Weapons Research Consortium, led by Dr. Juniper L. Simonis, has authored a new report that identifies some of the unknown chemicals used by federal police during their armed occupation of Portland (the traditional land of the Chinook, Multnomah, Clackamas and Cowlitz people). During these protests, federal DHS police used unknown chemicals through a variety of dispersal methods (guns, hoses, backpacks, pumps, and more).

The report, *Federal Agents Used Poisonous Zinc Chloride Gas Against Portland Black Lives Matter Protesters* is based on months of direct research by Simonis. With significant support from the community, Simonis combined their first-hand accounts, media reports, videos and photos of munitions, primary literature and analytical chemistry to identify the weapon as gaseous Zinc Chloride from Hexachloroethane (HC) "smoke" grenades.

The report highlights:

- As of September 25th, Portland currently has the most instances of police brutality since the end of May among US cities (regardless of size) (363 of the 1,147; New York City is the next highest with 102) and a further disproportionate rate of chemical attacks (45% vs 40% in all other cities combined). [\[Source\]](#)
- DHS deployed at least 24 (range: 23 - 27) HC grenades in July. The gas released is so toxic that these grenades produced enough Zinc Chloride to kill 137 (range: 131 - 154) Portlanders (100 kg).
- HC grenades produce a highly lethal combination of :
 - Zinc Chloride (ZnCl_2) [dominant constituent]
 - Carbon monoxide (CO)
 - Phosgene (COCl_2)
 - Hexachlorobenzene (C_6Cl_6)
 - Tetrachloroethene (C_2Cl_4)
 - Carbon tetrachloride (CCl_4)
 - Gaseous hydrogen chloride (HCl)
 - Chlorine (Cl_2)
- Human health impacts of HC smoke have been documented since it was created in the 1940s, showing a range of significant systems including:
 - Immediate dyspnea (labored breathing)

- Coughing
 - Lacrimation (tears)
 - Chest pain
 - Vomiting and nausea
 - Skin and mucosal irritation
 - Delayed and prolonged inflammation of internal organs
 - Tachycardia (rapid and irregular heartbeat)
 - Chronic genotoxicity of the bronchial epithelium (“damage to the genetic information within a cell causing mutations, which may lead to cancer of the lungs and airways”)
 - An average fatality rate of 0.14 among case clusters
- HC smoke has further significant effects on the environment, including:
 - Defoliation of trees
 - Long-term reduction in tree growth
 - Stunted bone development and bioaccumulation in fish
- In an open field, the concentration of Zinc Chloride produced by a typical HC grenade is high enough that an unmasked individual 200 yards (three city blocks in Portland) from detonation has a maximum of 24 minutes of safety before acute symptoms appear.
 - It is unclear how Zinc Chloride dissipates through an urban landscape within a river valley like Portland, but reported signs and symptoms indicate that it spread widely and cut through protective equipment.
- Zinc Chloride poses a significant risk to humans as well as the environment and a community of protesters, activists, journalists, legal observers, and scientists standing up for Black lives.

Given the significant lethality of its products, the wanton use of HC by DHS is an incredibly alarming deployment of chemical weapons against civilians that warrants significant further investigation.

Dr. Simonis is available for interview.

Please contact Jake Dockter Jake.Dockter@gmail.com for interviews, comment, or information.