

# Figure 1. The East Palestine Apocalyptic Fire – A Chemical “Stew”

A photograph of a massive industrial fire at night, with a dense plume of smoke and flames rising into the sky. Superimposed over the image are numerous labels identifying specific chemical compounds and elements present in the fire's emissions. The labels are color-coded: red for halogenated compounds (HF, HCl, MEHQ), green for sulfur and oxygen containing acids (SILICA, ACETIC ACID, KETONES, FORMALDEHYDE, TOLUENE, ACRYLAMIDE, CHROMIUM, FORMIC ACID, MERCAPTANS, PYRIDINES, INDOLES, ORGANIC ACIDS, BENEZENE SUBs, PYRROLES), blue for nitrogen containing compounds (AMMONIA, HCN, SOx), yellow for metals (Nickel, Cobalt), and orange for other substances (PAHs, PPF, PHOSGENE, Soot, Acrolein, ACETALDEHYDE, ALCOHOL, Hydrofluoric Acid, Lithium, Ash).

HF  
SILICA  
HCl  
MEHQ  
ACETIC ACID  
KETONES  
FORMALDEHYDE  
TOLUENE  
NOx  
Nickel  
Cobalt  
MERCAPTANS  
PYRIDINES  
Ash  
Lithium  
CO  
ALDEHYDES  
METHANE  
AMMONIA  
PROPYLENE OXIDE  
CHROMIUM  
FORMIC ACID  
ACRYLAMIDE  
INDOLES  
ORGANIC ACIDS  
BENEZENE SUBs  
PYRROLES  
PAHs  
PPF  
BENZENE  
PHOSGENE  
HCN  
Soot  
Acrolein  
ACETALDEHYDE  
SOx  
Hydrofluoric Acid