

Napalm– for a mini–nuke simulator design

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(This come from a US Navy website)

What Is Napalm?

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Napalm is a mixture of benzene (21%), gasoline (33%), and polystyrene (46%). Benzene is a normal component of gasoline (about 2%). The gasoline used in napalm is the same leaded or unleaded gas that you put in your car.

Gasoline is a mixture of hydrocarbons, which burn in an engine. It is a clear liquid, made from crude oil that burns and explodes easily. It naturally contains some benzene (which makes gas smell the way it does). Gasoline is lighter than, and floats on, water, but it will not mix with water. It dissolves grease and oil but will not dissolve polystyrene by itself, more benzene must be added to it. If gasoline is inhaled or swallowed, it can be dangerous or fatal. Breathing it results in an intense burning sensation in the throat and lungs, resulting in bronchitis and, eventually, pneumonia and possibly death. Swallowing gasoline results in inebriation (drunkenness), vomiting, dizziness, fever, drowsiness, confusion, and cyanosis (blue color).

Benzene is a light, colorless, aromatic liquid made from a variety of raw materials, mostly crude oil and coal. In many ways it is similar to gasoline, of which it is a part. The major uses of benzene are in making plastics and other chemicals, not fuel, although it could be used as one. If benzene is breathed or swallowed, it causes throat irritation, restlessness, excitement, depression, and, finally, convulsions, which can lead to death. A long exposure to benzene vapors (months or years) leads to bone marrow depression and in rare cases, leukemia.

Polystyrene is the white, tough plastic that is used to make cups, plates, and other tableware and food containers. In the pure state it is slightly heavier than water. It dissolves easily in acetone and benzene, but not in gasoline. It is not poisonous; if swallowed it passes unchanged through the digestive tract. But it is possible to

choke on it. Heated polystyrene softens at about 185 F. At higher temperatures it turns back into styrene, the chemical from which it was made. Styrene has been tested as toxic to rats. In air, polystyrene melts and burns with a yellow, sooty flame. Styrene itself has a sharp, unpleasant smell that is easy to recognize.

A trick is to substitute another solvent for benzene.