

ANTIKNOCK COMPOUNDSMANUFACTURING AND HANDLING HAZARDS

Q-1: Have there been any fatal accidents involving lead poisoning in the manufacture of antiknock compounds in the United States?

A-1: We know of only one, which took place in 1923 prior to the formation of Ethyl Corporation.

Q-2: What precautions are taken for the safe handling of antiknock compounds in the field?

A-2: Inasmuch as antiknock compounds are added to gasolines at refineries, the field safety program is primarily concerned with their handling in those locations. Antiknock compounds are added to gasoline under vacuum in special mixing plants which are completely enclosed and have their own safety devices. Should a leak develop, air enters the system rather than fluid leaking from it. These mixing plants are regularly inspected by safety engineers to insure that they are operating properly. The technical advice of these safety engineers is also available to refiners whenever a storage tank that has contained leaded gasoline has to be entered for cleaning or repair.

The blending personnel at mixing installations are also under medical supervision.

The antiknock compound industry follows its product from the manufacturing plants to its customer's mixing points where the product is disposed of in diluted form. We believe our industry is unique in its close control of product.

The lead alkyl portion of antiknock compounds, as ordinarily found in gasoline at service stations, presents no health hazard to the public. It accounts, on the average, for only about one part in 1600 of each gallon.

In summary, antiknock compounds are limited in distribution to gasoline manufacturing points such as refineries or natural gasoline plants. For the purpose of this discussion, the broad term "refineries" is used. All operations at these points are closely supervised from the standpoint of safety.

Q-3: Are any special precautions necessary at service stations because of antiknock compounds?

A-3: No - for the reason that antiknock compounds constitute such a small part of a gallon of gasoline.

Q-4: Why are warning signs placed on gasoline pumps at service stations?

A-4: These warning signs are part of the voluntary standards for the handling and use of leaded gasoline which were established by the tetraethyl lead industry in the 1920's. The signs simply point out that the gasoline contains a lead antiknock compound and that the fuel is to be used as a motor fuel only. This "warning" is intended to discourage people from using gasoline as a dry cleaning agent or fuel for stoves and lamps that have not been designed to use such fuels.

Q-5: Are there any dangers of lead poisoning to the public from coming into contact with leaded gasoline?

A-5: The only danger would be from the gasoline itself - not from the antiknock compound in the gasoline. The reason is that the hydrocarbons of gasoline would affect a person long before the small amount of antiknock compound in the gasoline could have any effect.

Q-6: Didn't one of the originators of tetraethyl lead die of insanity caused by lead poisoning?

A-6: No. Dr. Thomas Midgley, Jr., and Thomas A. Boyd discovered the antiknock properties of tetraethyl lead in 1921. Dr. Midgley was stricken with polio in the early 1940's and died in 1944. Mr. Boyd has been retired for a number of years. There was no connection with lead alkyls in the death of Dr. Midgley.

Q-7: What facilities does Ethyl have in California?

A-7: Ethyl operates no antiknock compound manufacturing facilities in California.

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