Tetraethyl lead—see **Lead.**

Tetrahydrofuran (tetramethylene oxide) is used in chemical reactions and as a solvent for resins and plastics Both acute and chronic exposures constitute a moderate health hazard Symptoms of overexposure—nausea, dizziness, and headache—soon disappear when fresh air is inhaled Kidney effects reported in early studies were probably due in part to impurities in the compounds tested

Tetryl (2,4,6-trinitrophenyl-methylnitramine) is a high explosive notable for its ability to produce a severe dermatitis by direct contact and a higher grade of sensitization in some persons There is some evidence of a slight systemic toxicity, not as important in practice as the dermatitis The systemic toxicity seems to consist of general central nervous system symptoms and anemia, although there is some evidence of liver damage and lung involvement from heavy chronic exposures

The dermatitis usually develops in the second or third week of contact with tetryl It is commonly accompanied by irritation of the mucous membranes of the nose, nosebleed, and yellow staining of the skin of the hands, face, and scalp Loss of appetite, abdominal cramps, and anemia are often seen in tetryl workers

Reduction of contact with the material by dust control measures accompanied by zinc oxide protective cream and work uniforms, including caps, will greatly reduce the hazard Most people who develop the dermatitis in a mild form will respond to treatment and acquire a certain tolerance so that they can continue working There is, however, no true immunity to tetryl People who have worked with the material for years develop dermatitis if the exposure is increased There are also some cases of true hypersensitivity, which must be removed from all contact

Thallium is not a common cause of poisoning in industry There have been some cases, mostly from the use of thallium salts as cosmetic depilatories or a part of the treatment of parasitic infections (tinea) in children A dose of 8 mg per kg of body weight has caused fatal poisoning in some instances

Typically, thallium causes swelling of the feet and legs, pains in the joints, sleeplessness, vomiting, disturbances of sensation, and mental confusion as well as complete loss of hair from all parts of the body

Thanite—see **Thiocyanates (aliphatic).**

Thiocyanates (aliphatic) are synthetic organic materials used only as insecticides Their toxicity is low enough that inhalation of the ordinary spray mist is not particularly dangerous, and so far as is known they are not absorbed through the intact skin When taken orally, they produce poisoning characterized by depression, difficult breathing and blue color of the lips, circulatory collapse and convulsions

The lethal oral dose is from 10 to 60 cc of the pure material or approximately 200 cc of the 5 percent solution in oil, normally used for spraying Such quantities might be encountered in careless handling and storage of the material, but would scarcely be inhaled in the use of it

Some animal experiments have also indicated that the chronic toxicity of these materials is low

Titanium is a metal used in alloys and in massive forms by the Atomic Energy Commission Since implants of the metal in muscle tissue proved inert, and no occupational systemic poisonings have been reported, its health hazard is rated as low

Titanium dioxide is widely used as a pigment It seems to be quite inert physiologically inasmuch as it is used as an ingredient of antiburn creams which are liberally applied to the skin of the face with no reports of ill effects Experimentally, it has been fed to animals by stomach tube in large amounts without producing any signs of toxicity

Titanium tetrachloride is sometimes used to produce "smoke" because of its rapid hydrolysis in moist air to produce a cloud of titanium dioxide and hydrochloric acid mist Its harmful effect is due entirely to the acid mist

The heat of reaction of titanium tetrachloride with water is greater than that of sulfuric