3. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS: This product contains tricresyl phosphate (TCP). TCP is composed of ten organophosphate isomers, all of which are neurotoxic and may cause permanent injury to the central nervous system (CNS) and peripheral nervous system (PNS). Under normal conditions of use, exposure to this product may produce neurological and non-neurological symptoms. Control measures to prevent contamination of the workplace environment and limit worker exposure need to be strictly enforced. Symptoms have been associated with both chronic, low-level exposures and single, acute exposures, in the form of breathing vapor/mist/smoke, skin contact, and ingestion from hand mouth conduct. Neurological symptoms can be delayed relative to the TCP exposure and can be long-term or permanent. CNS symptoms include memory loss, confusion, seizures and tremors. PNS symptoms include stomach cramping, muscle weakness, muscle cramps, numbness and tingling in the extremities, and paralysis. Non-neurological symptoms of exposure to this product include throat irritation, shortness of breath, and watery eyes, excessive mucous production, and rash. Refer to emergency and first aid procedures for additional information.

4. FIRST AID MEASURES, NOTE TO PHYSICIANS: This product contains tricresyl phosphate (TCP). TCP is composed of ten structurally similar neurotoxic compounds. Exposure may produce adverse effects that include the central nervous system (CNS), peripheral nervous system (PNS), and respiratory system under normal conditions of use, unless the workplace environment is kept free of contamination and personal hygiene practices are strictly enforced. A detailed history of the workplace condition and personal hygiene practices is essential to accurate diagnosis and treatment. Some improvement or even recovery from symptoms caused by PNS damage is expected with time. Improvement and recovery from symptoms caused by CNS damage is more limited because the CNS neurons do not regenerate, although some functions may be transferred to other neurons. A previously exposed patient will be vulnerable to permanent CNS symptoms from subsequent exposures because their reserve of CNS neurons is reduced. If the serum analysis is performed shortly after exposure, a suppressed butylcholinesterase level can indicate an acute exposure to TCP and vulnerability to the effects of subsequent exposures, but not neurological damage or symptoms. The acetylcholinesterase level in the red blood cells should not be affected by either a single acute exposure or a chronic low-level exposure, and is not a valid indicator of exposure, damage, or symptoms caused by TCP. Chronic low-level exposures may produce reactive oxygen species that may cause CNS and PNS damage. An EMG may verify PNS damage in the early stages after exposure, but in time, electrical activity should normalize. Neurological testing may verify CNS damage. Treat appropriately.