**13674-84-5 Tris(1-chloro-2-propyl) phosphate (TCPP)**

**Toxicity**

TCPP is classified by the EPA as a high hazard for developmental and reproductive toxicity based on a study of pregnant rats fed TCCP. After TCPP exposure, reduced uterine weights, prolonged estrous cycle and a greater number of runts in litters was observed.\(^1\)

**Exposure**

TCPP is used in rigid polyurethane foam and furniture foam, textiles, leather, electronics and building construction laminates as an additive flame retardant.\(^2\) TCPP has been found in furniture and baby products such as nursing pillows, portable mattresses, car seats, seat positioners and changing table pads.\(^3,4\)

TCPP has been frequently detected in residential dust in North America.\(^4,5\)

Two metabolites have been detected in human urine via biomonitoring in the U.S.\(^6,7\) A study in Sweden detected TCPP in breast milk.\(^8\) A 2008 study detected TCPP in hand wash samples of factory workers in Finland.\(^9\) TCPP is readily absorbed and distributed throughout the body in rats.\(^10\)

TCPP has been classified by the EPA as a high hazard for persistence based on biodegradation studies estimating TCPP to have a half-life of more than 60 days.\(^1\) A study detected TCPP in air, water and snow samples gathered in the North Atlantic and Artic.\(^11\) TCPP has also been detected in sea, surface, and drinking water, sewage effluent and indoor air from factories, offices and classrooms.\(^10,12-16\) A 2004 study detected TCPP in the indoor air of cars in Sweden.\(^17\) TCPP was detected in fruits such as pears and peaches in a 1995 study.\(^18\)

**Other**

A mixture of TCPP isomers makes up commercial TCPP.\(^2\)

**References**


17. Hartmann, PC; Burgi, D; Giger, W. Organophosphate flame retardants and plasticizers in indoor air. Chemosphere 2004, 57, 781–787. DOI: 10.1016/j.chemosphere.2004.08.051