



### **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 TCCP exposure, reduced uterine weights, prolonged estrous cycle and a greater number of runts in litters was observed.<sup>1</sup>

#### **Exposure**

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

TCPP has been frequently detected in residential dust in North America.<sup>4,5</sup>

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

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.<sup>1</sup> A study detected TCPP in air, water and snow samples gathered in the North Atlantic and Arctic.<sup>11</sup> TCPP has also been detected in sea, surface, and drinking water, sewage effluent and indoor air from factories, offices and classrooms.<sup>10,12-16</sup> A 2004 study detected TCPP in the indoor air of cars in Sweden.<sup>17</sup> TCPP was detected in fruits such as pears and peaches in a 1995 study.<sup>18</sup>

#### **Other**

A mixture of TCPP isomers makes up commercial TCPP.<sup>2</sup>

#### **References**

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