

**From:** Larry Rose  
**Sent:** Thursday, March 9, 2017 7:37 PM  
**To:** Turf, Synthetic@OEHHA  
**Subject:** Exposing children and pets, and athletic teams to synthetic turf

Osha now recognizes that 1-3 butadiene is a potent carcinogen that has clearly demonstrated in animal studies and exposed worker long term health studies. That is why a recent OSHA proposal to reduce the 8 hour worker (PEL), permissible exposure level to 2 ppm

**From:** Larry Rose  
**Sent:** Thursday, March 9, 2017 8:06 PM  
**To:** Turf, Synthetic@OEHHA  
**Subject:** carcinogenicity of 1-3 butadiene.

A recent proposal by OSHA to markedly reduce the 8 hour worker permissible exposure limit to 2 ppm was due to the unequivocal evidence that 1-3 butadiene is indeed a potent carcinogen demonstrated laboratory animals and exposed workers.

The crumb synthetic rubber fill used in artificial turf would expose children and pets to 1-3 butadiene both in fine inhaled particulates that would be airborne and in gassing off with heat.

The exposures that would occur would be due to inhalation and ingestion of the finer particles, and contamination of clothing worn by students and children roaming on this dangerous surface would undoubtedly be brought into their homes and classrooms. The synthetic rubber used in synthetic turf should be disposed of as a health dangerous hazardous chemical and should immediately be labeled with warning signs prominently posted for anyone walking or running on installed artificial turf that contains 1-3 butadiene. The installed surfaces of this type of turf should be immediately tested for wipe sampling concentrations and for airborne breathing zone concentrations of 1-3 butadiene.

Lawrence Rose M.D., M.P.H., 28 years as the Public Health Medical Office 111, Chief of the Medical Unit of Cal/OSHA, and a member of the Physicians for Social Responsibility, Bay Area.