

## **Dimethyl sulfoxide and their toxicity**

### **ABSTRACT**

The aim of the present mini-review was to report a toxic effect of dimethyl sulfoxide (DMSO) that has indicated to change the histology of the liver and kidney of rats. DMSO is a powerful co-solvent and often is used in early metabolic studies when compounds are poorly characterized and difficult to become soluble in water. To become soluble, they have to be dissolved in organic lipophilic solvents (vehicles). Following its conventional use, plant extract has been exposed to various intense and sub-acute toxicity studies to legitimize its toxicological security. Normally, DMSO has low fundamental toxicity yet plant extract when dissolved in 10% DMSO can cause noteworthy confined toxic impacts in the liver and kidney of rats. Be that as it may, vehicles currently in use have pleiotropic impacts, which are regularly obscure. Therefore, researchers ought to be cautious in the preparation and storage of substances before they are dispensed to animals. If this is not done, it may lead to accidental adverse effects on the animals and frequently result in inaccurate outcomes. In this mini-review, we summed up data on biological impacts of the DMSO most generally utilized lipophilic medication vehicles. Other than in experimental models, the information, where accessible, are presented on the impacts of solvents in therapeutic use in rodents. All in all, a few suggestions are given on the utilization of medication solvents in tests.

**Keyword:** DMSO; Clinacanthus nutans; Mice; Rat; Toxicity