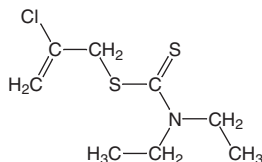


## Sulfallate

### CAS No. 95-06-7

Reasonably anticipated to be a human carcinogen  
First Listed in the *Second Annual Report on Carcinogens* (1981)



### Carcinogenicity

Sulfallate is *reasonably anticipated to be a human carcinogen* based on sufficient evidence of carcinogenicity in experimental animals (IARC 1983, NCI 1978). When administered in the diet, sulfallate induced mammary adenocarcinomas in female rats and mice, squamous cell carcinomas of the forestomach in male rats, and alveolar-bronchiolar adenomas in male mice. When administered intraperitoneally, sulfallate induced pulmonary-bronchiolar adenomas in mice of both sexes (Maronpot *et al.* 1986).

No adequate human studies of the relationship between exposure to sulfallate and human cancer have been reported (IARC 1983).

### Properties

Sulfallate is the generic trade name for 2-chloroallyl-diethyldithiocarbamate. Sulfallate is an amber oil that is slightly soluble in water and soluble in acetone, benzene, chloroform, ethyl acetate, ethyl alcohol, and most organic solvents. When heated to decomposition, it emits toxic fumes of hydrochloric acid, nitrogen, and sulfur oxides (IARC 1983, HSDB 2001).

### Use

Sulfallate was first introduced as a herbicide in 1954. The primary use of sulfallate in the United States was as a pre-emergent selective herbicide to control certain annual grasses and broadleaf weeds around vegetable and fruit crops. Sulfallate was also used to control weeds among shrubbery and ornamental plants (IARC 1983, HSDB 2001). All sulfallate products were discontinued by the manufacturer in the early 1990s (HSDB 2001, EPA 2001).

### Production

Commercial production of sulfallate in the United States was first reported in 1955 (IARC 1983). There are no current data available on the production of sulfallate. Chem Sources (2001) identified six current suppliers of sulfallate. The USITC identified a single company producing sulfallate from 1975 through 1982, with an implied annual production of >5,000 lb (USITC 1983); this same company indicated in 1985 that they no longer produced the compound (FCH 1985). Approximately 100,000 lb of sulfallate were used in the United States in 1975 and 1978 (HSDB 2001). No data were available on imports or exports of this chemical.

### Exposure

Sulfallate is no longer used in the United States; therefore the potential for exposure is low. In the past, the general population may have been exposed to sulfallate through ingestion of residues in food crops. In addition, the potential for exposure existed during the manufacture, formulation, and application of the herbicide. Agricultural workers had the greatest possible risk of sulfallate exposure and rural residents of agricultural communities were possibly exposed to airborne residues of sulfallate after spraying operations. No estimate of the number of people exposed was found (HSDB 2001).

## Regulations

### EPA

Resource Conservation and Recovery Act

Listed as a Hazardous Constituent of Waste

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