



# Sulfometuron-methyl

## Pesticide Fact Sheet: Forestry Use

### Product Information

- Sulfometuron-methyl is the common name for the active ingredient in **Oust**, a broad spectrum grass and broadleaf herbicide with pre- and post-emergence uses.
- Sulfometuron-methyl is formulated as a dispersible granule that is mixed with water and applied as a spray. The undiluted material contains 75% active ingredients and 25% inert ingredients.
- Sulfometuron-methyl is typically applied at very low rates. Application rates range from 1.5 to 3 ounces of active ingredient per acre.
- Sulfometuron-methyl is applied by ground rigs or helicopter before or after weeds emerge and when rainfall is sufficient to activate it in soil.
- For comparative purposes, the Environmental Protection Agency (EPA) categorizes pesticides by their short-term toxicity on a scale of I (most toxic) to IV (least toxic). Most undiluted sulfometuron-methyl formulations are Toxicity Category IV.

### Public Health

- Researchers use animal studies to define the potential for a pesticide to cause harmful effects to human health. It is important to know that these tests are carried out using doses high enough to cause toxicity

(poisoning). Effects seen at toxic doses in animals are unlikely to occur after short-term, low-level exposure in humans. The level of exposure must be considered to estimate the risk of harmful effects.

- Based on laboratory studies, sulfometuron-methyl is classified as practically non-toxic to mammals on a short term (acute) basis.
- On a long-term basis, sulfometuron-methyl is toxic only at very high doses.
- Sulfometuron-methyl is rapidly metabolized and excreted. In goats, most of the dose was excreted in the feces and urine after 7 days.
- Except at high doses, there is no evidence that sulfometuron-methyl causes birth defects, reproductive problems, nerve damage, DNA damage, or cancer.

### Wildlife Effects

- Based on laboratory and field studies, sulfometuron-methyl is classified as practically non-toxic to birds, terrestrial mammals, and fish on a short term (acute) basis.
- Sulfometuron-methyl is not expected to bioaccumulate in wildlife.

### Environmental Fate

- Sulfometuron-methyl persistence in surface water is largely dependent on

pH. Reported values for the half-lives in water range from 14 days under acidic conditions to 60 days at high pHs. The half-life of sulfometuron-methyl in sediments is 30 to 60 days.

- Sulfometuron-methyl is biologically active at low concentrations, and small amounts of drift can cause damage to adjacent plants or trees. Note that drift damage to plants is not a good indicator of human health risks because the chemical's mode of action is specific to plants.
- The half-life of sulfometuron-methyl in soils is 5 to 33 days. Its half-life in plants is 4 to 11 days.
- Sulfometuron-methyl is classified as moderately mobile and can move with runoff and enter surface water. Its low application rates minimize potential impacts on surface or groundwater. Right-of-way uses should be evaluated for potential surface and groundwater contamination.

### Risk Assessment

- The EPA has evaluated use practices, environmental fate, potential exposure routes, and toxicity of sulfometuron-methyl. Because sulfometuron-methyl is not used on food crops (and therefore is exempt from a tolerance) the EPA has not established a Reference Dose (RfD). The RfD is the amount of

daily pesticide exposure judged to pose no appreciable risk over a 70-year lifetime. Rats fed diets containing 50 mg/kg sulfometuron-methyl for 2 years did not exhibit any adverse effects.

- EPA has determined that the expected exposure associated with sulfometuron-methyl in right-of-way use will not result in adverse health effects. However, you should take reasonable precautions to avoid exposure. Do not walk through freshly-sprayed vegetation. Do not eat berries, mushrooms, or other edibles, or drink the water from newly-treated areas. If you are concerned about exposure, consult the resources listed in **Additional Information**.

## References

- EXTOWNET: Extension Toxicology Network. Pesticide Information Profile: Sulfometuron-methyl. Resource Center. Cornell University. Ithaca, NY.
  - Koeppe, M.K. and C. F. Mucha. 1996. Metabolism of sulfometuron methyl in lactating goats. *J. Agric. Food Chem.* 39, 2304-2309.
  - Meister, R.T., editor. 1996. Farm Chemicals Handbook '96. Meister Publishing Company. Willoughby, OH.
  - Thomson, W.T. 1993. Agricultural Chemicals Book II. Herbicides. Thomson Publications. Fresno, CA.
  - U.S. Environmental Protection Agency. 1995. Pesticide Environmental Fate One-Line Summary: Sulfometuron-methyl. Environmental Fate and Effects Division. Washington, DC.
- Vogue, P.A., E.A. Kerle, and J.J. Jenkins. 1994. OSU Extension Pesticide Properties Database.

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## Additional Information: Oregon

- Oregon State University Extension  
Environmental Chemistry and  
Toxicology Program  
**1-541-737-5993** Extension Specialist
- Oregon Poison Control  
**1-800-222-1222** (National)  
**1-503-494-8968** (Portland)  
**1-800-452-7165** (Outside Portland)
- Oregon Department of Agriculture  
**1-503-986-4550**  
**1-503-986-4635** (Pesticide Division)
- Oregon Health Division Pesticide  
Analytical Response Center  
**1-503-731-4025** (8 a.m.-5 p.m., M-F)  
**1-503-731-4030** (evenings, weekends)

## Washington

- Poison Control Center  
**1-800-222-1222** (National)  
**1-206-526-2121** (Seattle)  
**1-800-732-6985** (Outside Seattle)
- Washington Department of Agriculture,  
Pesticide Management Division  
**1-877-301-4555** (toll free)  
**1-360-902-2040** (Olympia)  
**1-509-576-3064** (Yakima)
- Washington State University Food and  
Environmental Quality Laboratory  
100 Sprout Road  
Richland, WA 99352-1643  
**1-509-372-7462** (phone)  
**1-509-372-7460** (fax)
- Washington Department of Health  
**1-800-525-0127**  
**1-360-236-3360** (Pesticide Program)  
**1-888-586-9427** (toll free)

## Nationwide

- National Pesticide Information Center  
**1-800-858-PEST (7378)**  
<http://npic.orst.edu/>
- Extension Toxicology Network  
(EXTOWNET)  
<http://ace.orst.edu/info/extownet/>
- DuPont Agricultural Products  
P.O. Box 80038 Wilmington, DE  
19880-0038  
**1-800-441-7515**  
**1-800-441-3637** (emergency phone)  
**1-302-992-2276** (fax)