

# ***Chondrostereum purpureum* strain HQ1 (081309) Fact sheet**

## **Summary**

*Chondrostereum purpureum* strain HQ1 is a naturally-occurring fungus that will be used in herbicide products to inhibit sprouting and regrowth of cut tree stumps. Its use is limited to painting cut stumps of hardwood species, such as birch, pin-cherry, poplar/aspens, maples and speckled alder growing in rights-of-way, wood lots and conifer plantations. The fungus has shown no toxicity or pathogenicity to humans, wildlife, or the environment.

### **I. Description of the Active Ingredient**

*Chondrostereum purpureum* is a cosmopolitan fungus species that is found in temperate regions of the northern and southern hemispheres. It is ubiquitous in Canada and common in the United States south to Virginia in the east and to northern California in the west. *C. purpureum* is found only in the xylem of living or recently killed broadleaf trees and shrubs. It causes silverleaf, a disease that occurs when the fungus blocks xylem vessels. These vessels provide structural support to the plant and also transport sap containing nutrients up to the leaves.

### **II. Use Sites, Target Pests, and Application Methods**

- **Use Sites:** Stumps of cut trees and shrubs in rights-of-way, wood lots and conifer plantations.
- **Purpose:** Inhibits sprouting and regrowth of shrubs and hardwood trees such as birch, pin-cherry, poplar/aspens, maples and speckled alder.
- **Application Methods:** Immediately after cutting down the tree, the user applies the product as a paste to the entire surface of the stump.

### **III. Assessing Risks to Human Health**

Whether a substance poses a risk to humans or other organisms depends on two factors: how toxic the substance is, and how much of it an organism is exposed to. Therefore, the EPA considers toxicity data and exposure data in deciding whether to approve a pesticide for use.

No signs of toxicity or pathogenicity were observed when *C. purpureum* strain HQ1 was administered to rats and rabbits via the oral, pulmonary, and dermal routes of exposure. In rabbits, *C. purpureum* strain HQ1 was not irritating when applied dermally, or when instilled in the eye. Furthermore, *C. purpureum* has not been reported to produce any mammalian toxins or to infect mammalian tissues. It will not survive at or near normal human body temperature (37°C). Therefore, no worker protection measures have been

established beyond requiring the standard precautionary labeling and typical personal protective equipment.

#### **IV. Assessing Risks to the Environment**

*Chondrostereum purpureum* is ubiquitous in the forest ecosystem, so non-target organisms are naturally exposed to spores. However, there is very limited risk to non-target broadleaf plants found near application sites, due to simultaneous, multiple requirements for infection: a nearby source of inoculum, a narrow temperature range (20-25° C), high relative humidity (+80%) for maximum sporulation, the presence of a fresh wound on a susceptible shrub or tree, and sufficient wind for spores to reach susceptible plants. In addition, an extensive literature search found no reports of adverse effects on birds, wild mammals, fish, insects or other invertebrates, or aquatic plants. Acute mammalian toxicity testing showed that *C. purpureum* strain HQ1 is not toxic or pathogenic. *C. purpureum* does not grow at 35°C and is killed by sustained incubation at 37°C, making it unlikely to be a pathogen of mammals or birds.

#### **V. Regulatory Information**

On September 3, 2002, Myco-Forestis Corporation submitted a application for registration to U.S. Environmental Protection Agency (EPA) for the new active ingredient *Chondrostereum purpureum* strain HQ1. Health Canada Pest Management Regulatory Agency (PMRA) had previously registered the product in Canada on February 1, 2002 . On March 30, 2005, EPA issued registrations to the first two products containing *Chondrostereum purpureum* strain HQ1 as the active ingredient: the Manufacturing Use Product, "Chondrostereum purpureum strain HQ1 Concentrate" (EPA Reg. No. 74128-1) and the End-Use Product, Myco-Tech™ Paste" (EPA Reg. No. 74128-2).

On September 23, 2004, products with similar uses were registered containing *C. purpureum* ; [Chondrostereum purpureum strain PFC 2139](#) (EPA Reg. No. 74200-1 & 74200-2).

#### **VI. Registrant Information**

Myco-Forestis Corporation,  
801 Route 344, Casier postal 3158  
L'Assomption, Quebec  
Canada, J5W 4M9.

Myco-Forestis is represented by:  
Frederick T. Smith, Senior Regulatory Specialist

SciReg, Inc.  
Science and Regulatory Consultants  
12733 Director's Loop  
Woodbridge, VA 22192

**VII. Additional Contact Information**

[Ombudsman, Biopesticides and Pollution Prevention Division](#) (7511P)  
Office of Pesticide Programs  
Environmental Protection Agency  
1200 Pennsylvania Avenue, NW  
Washington, D.C. 20460