Chondrostereum purpureum strain PFC 2139 (081308) Fact sheet

Summary

Chondrostereum purpureum strain PFC 2139 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 alders, aspen and other hardwood trees and shrubs in rights-of-way and forests. 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 and forest areas.
- **Purpose:** Inhibits sprouting and regrowth of shrubs and hardwood trees such as red alder, sitka alder, speckled alder and trembling aspen.
- **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

No signs of toxicity or pathogenicity were observed when *C. purpureum* strain PFC 2139 was administered to rats and rabbits via the oral, pulmonary, and dermal routes of exposure. In rabbits, *C. purpureum* strain PFC 2139 was slightly 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 PFC 2139 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 April 15, 1999, MycoLogic Incorporated submitted a formal request to U.S. Environmental Protection Agency (EPA) for a Joint Review of the *Chondrostereum purpureum* strain PFC 2139 submission by both the Health Canada Pest Management Regulatory Agency (PMRA) and EPA. Subsequently, MycoLogic Incorporated submitted an application to EPA on August 2, 2001 for registration of an end-use product and a manufacturing use product. On September 23, 2004, EPA issued registrations to the first two products containing *Chondrostereum purpureum* strain PFC 2139 as the active ingredient: the Manufacturing Use Product, “CP-PFC 2139" (EPA Reg. No. 74200-1) and the End-Use Product, “Chontrol Paste” (EPA Reg. No. 74200-2).

VI. Registrant Information

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