

Liquid Nitrogen (128934) Fact Sheet

Summary

Liquid nitrogen is approved for use as a pesticide for drywood termites in wood. The termites die when exposed to a temperature of minus 20 degrees F (minus 29 degrees C) for 5 minutes. Because liquid nitrogen can cause death by suffocation, and also is corrosive to skin and eyes, only certified applicators are allowed to apply liquid nitrogen. Applicators must follow all the instructions and precautions in a training manual that accompanies the product. No harmful environmental or human effects are expected because the product is used only indoors, and because certified applicators are the only persons allowed to be present.

I. Description of the Active Ingredient

As a gas, nitrogen makes up 78% of earth's atmosphere, with oxygen making up 21%. Nitrogen changes from a gas to a liquid at a very cold temperature: minus 320 degrees F (minus 195 degrees C). When liquid nitrogen is exposed to the air, it rapidly reverts to its normal gaseous state. (CAS # 7727-37-9)

II. Use Sites, Target Pests, And Application Methods

- **Use Sites:** Spaces in buildings infested with drywood termites.
- **Target pests:** Drywood termites. [NOTE: Drywood termites comprise several species that can live in wood containing as little as 3% moisture. In the U.S., drywood termites are a problem primarily in the southwest.]
- **Application Methods:** Certified applicators use special equipment to inject the liquid nitrogen through pre-drilled holes so the nitrogen disperses throughout the spaces between walls. A probe measures the wood temperature to ensure that the wood is kept at minus 20 degrees F (minus 29 degrees C) for 5 minutes, the conditions needed to kill the termites. Applicators also follow stringent safety procedures.

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 adverse effects to humans are expected so long as applicators follow required safety precautions. These include: certification/training; presence of at least two people; use of an oxygen monitor to ensure levels remain normal; personal protective equipment to protect skin and eyes from any exposure; and a self-contained breathing apparatus (SCBA) for emergencies.

IV. Assessing Risks to the Environment

No risks to the environment are expected because use is entirely indoors, and any liquid nitrogen that gets outdoors will rapidly become a gas and harmlessly disperse.

V. Regulatory Information

Year active ingredient was initially registered (licensed for sale): 1987

Number of end use products (January 2002): 1

NOTE: *Label amendments with increased safety requirements were approved in 1992 and 1996.*

VI. Registrant Information

Blizzard System, Inc.
123 West Torrance Boulevard, Suite 203
Redondo Beach, CA 90277

VII. Additional Contact Information

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