



R.E.D. FACTS

Starlicide (3-chloro-p-toluidine hydrochloride)

Pesticide Reregistration

All pesticides sold or distributed in the United States must be registered by EPA, based on scientific studies showing that they can be used without posing unreasonable risks to people or the environment. Because of advances in scientific knowledge, the law requires that pesticides which were first registered years ago be reregistered to ensure that they meet today's more stringent standards.

In evaluating pesticides for reregistration, EPA obtains and reviews a complete set of studies from pesticide producers, describing the human health and environmental effects of each pesticide. The Agency imposes any regulatory controls that are needed to effectively manage each pesticide's risks. EPA then reregisters pesticides that can be used without posing unreasonable risks to human health or the environment.

When a pesticide is eligible for reregistration, EPA explains the basis for its decision in a Reregistration Eligibility Decision (RED) document. This fact sheet summarizes the information in the RED document for reregistration case 2610, 3-chloro-p-toluidine hydrochloride or starlicide.

Use Profile

Starlicide is an avicide used to control ravens, starlings, crows, pigeons, cowbirds, grackles, magpies, and certain gull species. Use sites vary by species but include livestock and poultry feedlots, building and fenced noncrop areas, Federal and State wildlife refuges and protected areas, gull colonies in coastal areas, and bird staging areas and roosting sites.

Starlicide is formulated as a 98% powder to be applied to various baits, and as a 0.1% ready-to-use product. It is applied in solution to various baits (meat, grain, egg, french fries), allowed to dry, and placed in bait boxes or trays or broadcast by various means in target areas.

Use practice limitations include the classification of all products containing starlicide as restricted use, to be applied only by certified applicators or persons under their supervision. Starlicide treated baits cannot

be applied within 50 feet of standing water and cannot be applied directly to food or feed crops. There is a prohibition against grazing or planting crops in treated areas within a year of application. Prebaiting must be done before application to ensure that non-target or endangered species will not eat treated baits.

Regulatory History

Starlicide was first registered as a pesticide in the U.S. in 1967. Currently, 15 starlicide products are registered, including 7 Federal and 8 state registrations

Human Health Assessment

Toxicity

In studies using laboratory animals, starlicide has been shown to be of moderate to high acute toxicity. Starlicide is moderately toxic by the oral route and slightly toxic by the dermal route, placing it in Toxicity Categories II and III, respectively for these effects. Although a study was not provided, based on its other acute toxicity properties, starlicide is presumed to be highly acutely toxic (Toxicity Category I) by the inhalation route. It is corrosive to skin and eyes (also Toxicity Category I for these effects) and is a mild to moderate skin sensitizer. Starlicide was not mutagenic in three mutagenicity assays provided to the Agency, and is not a carcinogen.

Dietary Exposure

Since starlicide is not used on food or feed crops or commodities, no human dietary exposure is expected.

Occupational and Residential Exposure

Based on current use patterns, handlers (mixers, loaders, and applicators) may be exposed to starlicide during the mixing of concentrate with the various baits. Because of its high vapor pressure and presumed high acute inhalation toxicity, the Agency has concern about the potential for exposure to handlers mixing starlicide concentrate in one pound quantities. However, the potential for post application exposure for persons entering a treated site after application is minimal, and the Agency has no post-application concerns.

Human Risk Assessment

Starlicide generally is of high acute toxicity, but is not a mutagen or a carcinogen. There are no food or feed uses registered for starlicide, and no human dietary exposure is expected.

Since there is some concern for handlers (mixers/loaders/applicators) using one pound or more quantities of starlicide concentrate, the Agency has concluded that the use of a respirator in these instances would minimize exposure.

Environmental Assessment

Environmental Fate

Starlicide does not hydrolyze, but does photodegrade in water, which, based on available data, appears to be its primary route of dissipation in the environment. Starlicide binds to organic matter in soils, but a complete environmental fate assessment cannot be performed because the submitted data was not adequate. The Agency is not requiring new studies, however, because of the limited uses of starlicide and the extremely low volume of active ingredient applied annually.

Ecological Effects Risk Assessment

Starlicide is very highly toxic to birds and freshwater invertebrates and moderately toxic to freshwater fish. Starlicide is moderately toxic to mammals. Data on toxicity to insects (honeybees) and non-target plants were not required for starlicide.

Based on the data, non-target birds and mammals may be at risk from eating starlicide treated bait (primary exposure), or, as scavengers and predators, from consuming animals who have eaten treated baits (secondary exposure). The risk to primary non-target bird populations is considered high for all uses of starlicide, as is the risk to endangered small mammals in areas treated with the highest application rates. Acute risk is also posed to aquatic invertebrates.

Risk Mitigation

To lessen the risks to non-target animals posed by starlicide, EPA is requiring the following risk mitigation measures.

- Prebaiting, which will lessen the risk of ingestion of treated baits by non-target species, will be required on all labels.
- Lower application rates - Because risk to endangered mammals and aquatic invertebrates is highest at the maximum application rates, the highest rate allowed for broadcast applications of starlicide treated baits will be 0.1 lbs./acre.
- Buffer zones To lessen the potential for runoff which may pose acute risk to aquatic invertebrates, treated baits must be placed at least 50 feet from bodies of water.

Also, because of concern for inhalation exposure of mixers and loaders to starlicide concentrate, the following is required:

- In addition to the personal protective equipment already on starlicide labels (goggles and gloves), a respirator approved for pesticides must be worn by persons mixing quantities of one pound or more of starlicide.

Additional Data Requirements

The generic database supporting starlicide is substantially complete. The Agency is still requiring product-specific data including product chemistry and acute toxicity studies, revised Confidential Statements of Formula (CSFs), and revised labeling for reregistration.

Product Labeling Changes Required

All starlicide end-use products must comply with EPA's current pesticide product labeling requirements. For the complete text of list of labeling requirements, please see pp. 33-36 of the starlicide RED document.

Regulatory Conclusion

The use of currently registered products containing starlicide in accordance with approved labeling will not pose unreasonable risks or adverse effects to humans or the environment. Therefore, all uses of these products are eligible for reregistration.

Starlicide products will be reregistered once the required product-specific data, revised Confidential Statements of Formula, and revised labeling are received and accepted by EPA.

For More Information

EPA is requesting public comments on the Reregistration Eligibility Decision (RED) document for starlicide during a 60-day time period, as announced in a Notice of Availability published in the Federal Register. To obtain a copy of the RED document or to submit written comments, please contact the Pesticide Docket, Public Response and Program Resources Branch, Field Operations Division (7506C), Office of Pesticide Programs (OPP), US EPA, Washington, DC 20460, telephone 703-305-5805.

Electronic copies of the RED and this fact sheet can be downloaded from the Pesticide Special Review and Reregistration Information System at 703-308-7224. They also are available on the Internet on EPA's gopher server, *GOPHER.EPA.GOV*, or using ftp on *FTP.EPA.GOV*, or using WWW (World Wide Web) on *WWW.EPA.GOV*.

Printed copies of the RED and fact sheet can be obtained from EPA's National Center for Environmental Publications and Information (EPA/NCEPI), PO Box 42419, Cincinnati, OH 45242-0419, telephone 513-489-8190, fax 513-489-8695.

Following the comment period, the starlicide RED document also will be available from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161, telephone 703-487-4650.

For more information about EPA's pesticide reregistration program, the starlicide RED, or reregistration of individual products containing starlicide, please contact the Special Review and Reregistration Division (7508W), OPP, US EPA, Washington, DC 20460, telephone 703-308-8000.

For information about the health effects of pesticides, or for assistance in recognizing and managing pesticide poisoning symptoms, please contact the National Pesticides Telecommunications Network (NPTN). Call toll-free 1-800-858-7378, between 9:30 am and 7:30 pm Eastern Standard Time, Monday through Friday.