



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

For Ken Clark.

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Transmission of RS Chemical Sulfuryl Fluoride FINAL Index Entry

TO: ADDRESSEES

A copy of the insecticide final Index entry (single active ingredient products only; there are no multiple active ingredient products) for the RS chemical sulfuryl fluoride (078003) is attached for your organization's use and retention.

Any questions regarding content should be directed to our entomologist David Brassard (557-7498).

Phyllis L. Johnson

Phyllis L. Johnson
Project Officer
Science Support Branch
Benefits and Use Division (TS-768-C)

ADDRESSEES: E. David Thomas, Ph.D.
Chief, Animal Biology and Entomology Section
Science Support Branch/BUD (TS-768-C)
Arnold Aspelin, Ph.D.
Chief, Economics Analysis Branch/BUD (TS-768-C)
Judy Heckman
Hazard Evaluation Division (TS-769-C)
William Miller, PM-16
Registration Division (TS-767-C)
Herbert Harrison, Chief
Insecticide-Rodenticide Branch/RD (TS-767-C)

Attachment

cc: W. Phillips
A. Beloian
D. Brassard

EPA Index to Pesticide Chemicals

SULFURYL FLUORIDE

TYPE PESTICIDE: Insecticide

FORMULATIONS: PrGs (99%)

GENERAL WARNINGS AND LIMITATIONS: For use only by professional applicators. To enter an area under fumigation, use a recommended acid gas canister which will provide respiratory protection for limited periods of time. For higher concentrations of fumigant, or when in an area for longer than 2 hours, use air-supplied breathing apparatus.

PREPARATION FOR FUMIGATION: Remove from the structure to be fumigated, all persons, domestic animals, or pets including goldfish, and desirable growing plants. Completely enclose mattresses in waterproof covers. Food and medicinals not in sealed glass or metal containers must be either placed in polyethylene plastic bags of 4 mil or greater thickness and sealed with masking tape or clamps, or removed from the building. This precaution also applies to food in refrigerators and frostless freezers. Extinguish all flames, including pilot lights. Open doors between rooms and off hallways, and openings into crawl spaces of attics and sub-floors. Provide for forced air circulation of the fumigant during the application period. For masonry or metal structures, seal all cracks and other air leaks with caulking material or tape, and seal cracks around doors, windows, vents, and other openings. Wooden structures and others that cannot be readily sealed may be completely enveloped with an impervious tarpaulin material such as 4 mil polyethylene sheeting. To prevent escape of gas through the soil and to avoid injury to nearby plants, wet the soil to a depth of 6 inches for a distance of 1 foot outward from the edge of the cover. Seal securely all sheeting seams and seal the lower edges of the cover to the ground with moist soil, or with sand or water 'snakes'. In cold weather it is recommended that the air temperature within the building be warmed to at least 55 F (12.8 C) before introducing the fumigant.

WARNING AGENT FOR USE IN CLEARING STRUCTURES PRIOR TO FUMIGATION: After preparing the structure for fumigation and sealing all but 1 entrance, place a handful of cotton in a shallow dish and set the dish in the air stream of an electric fan. Pour chloropicrin over the cotton. Use 1 ounce per 10,000 to 15,000 cubic feet of space to be fumigated. Seal the last opening to the building and start the fan. Check for leaks. Five to 10 minutes later introduce the sulfuryl fluoride.

RELEASING THE FUMIGANT: Release the fumigant from outside the structure. Lead it from the shipping cylinder into an open space in the building through a suitable leak-proof tube. One-quarter inch copper or polypropylene tubing, or polyethylene tubing of at least 62 mil wall thickness is satisfactory. Direct the fumigant into the blast of air from a fan. Run the fan during application and for 30 minutes after application is finished. For an average structure, the entire amount may be released in 1 place, but for large or complex structures release it at 2 or more locations so chosen as to ensure even distribution of the gas. To prevent corrosion, avoid applying gas directly to metal surfaces.

EPA Index to Pesticide Chemicals

SULFURYL FLUORIDE

GENERAL WARNINGS AND LIMITATIONS (continued)

AERATION: At the end of the exposure period, remove all seals and open all doors and windows. Use ventilation fans to remove fumigant from dead air pockets. Do not reoccupy building until aeration is complete. Check for completeness of aeration with a suitable fumigant monitoring instrument.

DOSAGE COMPUTATION: Refer to manufacturer's instructions since the dosage required is influenced by temperature, exposure period, and rate of loss of fumigant for a 20 to 24 hour exposure period. A reference dosage can be determined using a sliding scale calculator supplied by the manufacturer, when these variables are known. The dosage required to control a specific pest is a known multiple of the reference dosage computed.

<u>Site and Pest</u>	<u>Dosages and Formulation(s)</u>	<u>Tolerance, Use, Limitations</u>
----------------------	-----------------------------------	------------------------------------

AGRICULTURAL PREMISES AND EQUIPMENT

(Farm Storage and Equipment)

6100900	<u>Barns</u>		
IQAFACA 6100983	Bed bug	2 times reference dosage (99% PrGs)	Fumigation treatment.
299.0018			
ITBSABA 6100983 9000900	Clothes moths	6 times reference dosage (99% PrGs)	Fumigation treatment. Open all storage chests, drawers, and closets.
299.0018			

DOMESTIC DWELLINGS, MEDICAL FACILITIES AND SCHOOLS

6300100	<u>Domestic Dwellings (Indoor)</u>		
IQAFACA 6300183	Bed bug	2 times reference dosage (99% PrGs)	Fumigation treatment.
299.0018			
ITBSABA 6300183 9000900	Clothes moths	6 times reference dosage (99% PrGs)	Fumigation treatment. Open all storage chests, drawers, and closets.
299.0018			

EPA Index to Pesticide Chemicals

SULFURYL FLUORIDE

<u>Site and Pest</u>	<u>Dosages and Formulation(s)</u>	<u>Tolerance, Use, Limitations</u>
----------------------	-----------------------------------	------------------------------------

STRUCTURES, WOOD PRODUCTS AND WOOD COMMODITIES(Terrestrial Structures (structural pest control and wood protection))

/6400000

Terrestrial Structures@INABFA
\$6400086

Deathwatch beetle

10 times
reference
dosage
(99% PrGs)Nonsoil contact fumigation treat-
ment.

&299.0018

@IMGCAGA
\$6400086

Drywood termites

equal to
reference
dosage
(99% PrGs)Nonsoil contact fumigation treat-
ment.

&299.0018

@INBEAFA
\$6400086

Lyctus beetles

10 times
reference
dosage
(99% PrGs)Nonsoil contact fumigation treat-
ment.

&299.0018

@INALANA
\$6400086

Old house borer

4 times
reference
dosage
(99% PrGs)Nonsoil contact fumigation treat-
ment.

&299.0018

GRAIN, BULK COMMODITIES, PROCESSED FOODS, AND FOOD CONTAINERS.(Stored Nonfeed/Nonfood Products, Storage and Handling Equipment)

/4603100

Nonfeed/Nonfood Storage Areas (Full)@IQAFACA
\$4603183

Bed bug

2 times
reference
dosage
(99% PrGs)

Fumigation treatment.

&299.0018

@ITBSABA
\$4603183
I9000900

Clothes moths

6 times
reference
dosage
(99% PrGs)Fumigation treatment. Open all
storage chests, drawers, and
closets.

&299.0018

EPA Index to Pesticide Chemicals

SULFURYL FLUORIDE

<u>Site and Pest</u>	<u>Dosages and Formulation(s)</u>	<u>Tolerance, Use, Limitations</u>
----------------------	-----------------------------------	------------------------------------

AERIAL, MOTHPROOFING AND TANK MIX APPLICATIONS

Mothproofing

--

Refer to

AGRICULTURAL PREMISES AND EQUIPMENT

All sites

DOMESTIC DWELLINGS, MEDICAL FACILITIES AND SCHOOLS

All sites

GRAIN, BULK COMMODITIES, PROCESSED FOODS, AND FOOD
CONTAINERS

All sites

EPA Index to Pesticide Chemicals

SULFURYL FLUORIDE

Listing of Registered Pesticide Products by Formulation

299.0018 99% pressurized gas
sulfuryl fluoride (078003)
000464-00236 002749-00272

EPA Index to Pesticide Chemicals

SULFURYL FLUORIDE

State Label Registration

CA Reg. No.
005785-03694