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MATERIAL SAFETY DATA SHEET
STARBAR® GOLDEN MALRIN® FLY BAIT

Manufacturer: Wellmark International

Address: 1501 E. Woodfield Rd., Suite 200-West, Schaumburg, IL 60173

Emergency Phone: 1-800-347-8272

Transportation Emergency Phone: CHEMTREC: 1-800-424-9300

1. CHEMICAL PRODUCT INFORMATION

Product Name: Starbar® Golden Malrin® Fly Bait

Chemical Name/Synonym: Methomyl; S-methyl N-[(methylcarbamoyl)oxy]thioacetimidate

Chemical Family: Carbamate

Formula: C5 H10 N2 O2 S

EPA Registration No.: 2724-274

RF Number: 128E

2. COMPOSITION / INFORMATION ON INGREDIENTS

Component (chemical, common name)	CAS Number	Weight	Tolerance
Methomyl: (S-Methyl N-[(methylcarbamoyl)oxy] thioacetimidate	16752-77-5	1.1%	2.5 mg/m3 (OSHA & ACGIH)
(Z)-9 Tricosene	27519-02-4	0.049%	Not established
Inert ingredients (non-hazardous and/or trade secret)		98.851	Not established

3. HAZARD INFORMATION

PRECAUTIONARY STATEMENT
KEEP OUT OF THE REACH OF CHILDREN

CAUTION: HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH THE SKIN. AVOID BREATHING DUST. AVOID CONTACT WITH SKIN, EYES OR CLOTHING. DO NOT ALLOW CHILDREN INTO TREATED AREAS.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Active ingredient is a cholinesterase inhibitor: may cause excessive sweating, salivation, nausea, vomiting, headaches, diarrhea, slurred speech, muscle twitching, pin-point pupils, ataxia, tightness in chest, vomiting, cyanosis, pulmonary edema.

PRIMARY ROUTE OF ENTRY **Dermal/Eye:** No **Oral:** Yes **Inhalation:** Yes

ACUTE TOXICITY

Oral: LD50 (rat): 3,106 mg/kg

Dermal: LD50 (rabbit): >2,100 mg/kg (highest dose level tested)

Inhalation: Unknown

OTHER TOXICOLOGICAL INFORMATION

Skin Irritation: Non-irritating (rabbit)

Eye Irritation: Very minimal (rabbit)

Sensitizer: Not considered a sensitizer

4. FIRST AID MEASURES

Eye: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 – 20 minutes

Ingestion: Immediately call poison control center or doctor for advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by poison control center or doctor. Do not give anything by mouth to an unconscious person.

Inhalation: Remove to clear air area.

Note to Physician: Methomyl is a cholinesterase inhibitor. Atropine is antidotal. Where symptoms are visible, atropine I.V. to effect is suggested.

5. FIRE FIGHTING MEASURES

NFPA Rating: **Health: 1** **Fire: 0** **Reactivity: 0**

Flammability Class: Combustible solid

Flash Point: Does not flash

Explosive Limits (% of Volume): N/A

Extinguishing Media: Water, foam, dry chemical, CO2

Special Protective Equipment: Fire fighters should wear full protective clothing including self-contained breathing apparatus.

Fire Fighting Procedures: Normal procedures. Do not allow fire fighting water to escape into waterways or sewers.

Combustion Products: Carbon monoxide

Unusual Fire/Explosion Hazards: Will ignite if exposed to intense heat or open flame. Fire or intense heat may rupture container

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken: Small amounts may be swept up and spread in planned use areas as directed on label or placed in container for disposal.

Absorbents: If in liquid form, use clay granules, sawdust, dirt or equivalent.

Incompatibles: Reactive metals, strong oxidizers

7. HANDLING AND STORAGE

Handling: Avoid breathing dust, avoid contact with skin, eyes or clothing. Wear the following personal protective clothing during loading, application, repairing, and cleaning of application equipment., and disposal of the pesticide: Long-legged pants; shoes and socks; gloves. Always wash hands, face and arms with soap and water before using tobacco products, eating, drinking, or toileting

Storage: Do not store near water, food, or feed. Store in a dry cool place not reachable by children.

8. EXPOSURE CONTROL / PERSONAL MEASURES

Exposure Limits: Methomyl = 2.5 mg/m3 (OSHA PEL & ACGIH TLV)

Ventilation: Ventilate to keep airborne exposures below recommended limits

Personal Protective Equipment: If excessive exposure is anticipated, it is recommended for handlers to wear a MSHA/NIOSH approved organic respirator with a dust prefilter, impervious gloves, goggles with side shields, and other appropriate clothing to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Solid blue granules with characteristic sulfurous odor.

Boiling Point: N/A

Melting Point: N/A

Vapor Pressure (mm Hg): N/A

Vapor Density (Air = 1): N/A

Specific Gravity: >1

Bulk Density: 0.84 g/ml (0.80 - 0.90

Solubility: Soluble in water

Evaporation Rate: N/A

pH: N/A

10. STABILITY AND REACTIVITY

Stability: Stable

Reactivity: Nonreactive

Incompatibility w/ Other Materials: Reactive metals, strong oxidizers

Decomposition Products: Oxides of nitrogen, carbon monoxide, carbon dioxide

Hazardous Polymerization: Will not occur

11. TOXICOLOGICAL INFORMATION

CHRONIC TOXICITY [Specific to Active Ingredient(s)]

In a 2 year feeding study in rats at feeding levels, 0, 50, 100, 200 and 400 ppm; the no effect level (NOEL) was 100 ppm based on slight hemolytic anemia and/or body weight effects observed at the higher dietary concentrations. No compound related neoplastic lesions were observed. In a 2 year feeding study in mice at feeding levels, 0, 50, 75, and 200 ppm; no compound related neoplastic or non-neoplastic histologic effects were found at any level. The NOEL was considered to be 50 ppm based on transient hemolytic anemia and increased mortality at the higher dietary concentrations. In a 2 year feeding study in dogs at feeding levels 0, 50, 100, 400, and 1,000 ppm the NOEL of 100 ppm was based on hemolytic anemia and non-neoplastic changes within the kidney and spleen at the higher dietary concentrations. There were no neoplastic effects at any dose

DEVELOPMENTAL/REPRODUCTIVE TOXICITY [Specific to Active Ingredient(s)]

A 3-generation rat reproduction study at rates of 50 and 100 ppm showed no adverse effect upon fertility, and no compound related histologic effect. A 2-generation rat study conducted at 75, 600, and 1,200 ppm in the diet showed similar results. In rats, no embryotoxic or teratogenic effects were observed at levels up to 400 ppm (highest level fed). In rabbits, the highest dietary dose level (100 mg/kg) did not cause any observed compound related abnormalities.

MUTAGENICITY [Specific to Active Ingredient(s)]
Methomyl was negative in numerous assays to evaluate mutagenicity and genotoxicity, including Ames test, Reverse Mutation Assay, Recessive Lethal Assay, three DNA damage studies, an unscheduled DNA Synthesis Assay, and in vitro and in vivo cytogenic assays. Methomyl is not listed as a carcinogen by the IARC, NTP, OSHA and ACGIH.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE [Active Ingredients Only]

Hydrolysis: N/A

Photolysis: N/A

Soil half life: N/A

Water solubility: Soluble in water

Do not apply directly to water, or to areas where surface water is present. This chemical is known to leach through soil into ground water, especially where soils are permeable or water table is near the surface.

ECOTOXICITY [Active Ingredients Only]

Acute Toxicity: fish:LC50 (rainbow trout): 3.4 ppm (96 hour study), (bluegill sunfish): 0.72 mg/L (96 hour study); aquatic invertebrates:LC50 (daphnia magna): 31.7 ppb (48 hour study) . Toxic to birds.

13. DISPOSAL CONSIDERATIONS

Do not contaminate water, food or feed by disposal. Waste resulting from the use of this product may be disposed of on site or an approved waste disposal facility. **Plastic Container Disposal:** Triple rinse (or equivlent). Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or by other approved state and local procedures.

14. TRANSPORT INFORMATION

DOT49CFR Description: Not applicable

Freight Classification: Insecticides, Animal, NOI, O/T Poison NMFC I-102120 Class 60

15. REGULATORY INFORMATION

CERCLA (Superfund): Reportable Quantity (RQ) = Methomyl 100 lbs. If a spill exceeds the RQ contact the National Response Center at (800)424-8802

RCRA: Methomyl (PO66)

SARA 311/312 HAZARD CATEGORIES

Immediate Health: Yes (irritant)

Delayed Health: Yes

Fire: No

Sudden Pressure: No

Reactivity: No

The information presented herein, while not guaranteed, was prepared by technically knowledgeable personnel and to the best of our knowledge is true and accurate. It is not intended to be all inclusive and the manner and conditions of use and handling may involve other or additional considerations.

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