

MATERIAL SAFETY DATA SHEET
ZODIAC® FLEATROL FLEA COLLAR FOR DOGS

Manufacturer: Wellmark International
Address: 1501 E. Woodfield Rd., Suite 200-West, Schaumburg, IL 60173
Emergency Phone: 1-800-950-4783
Transportation Emergency Phone: CHEMTREC: 1-800-424-9300

1. CHEMICAL PRODUCT INFORMATION

Product Name: Zodiac® Fleatrol Flea Collar for Dogs
Chemical Name/Synonym: Carbaryl (1-Naphthyl N-methylcarbamate)
Chemical Family: Carbamate
Formula: C12 H11 NO2
EPA Registration No.: 2724-273
RF Number: 75D

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Component (chemical, common Name)</u>	<u>CAS Number</u>	<u>Weight</u>	<u>Tolerance</u>
Carbaryl: 1-Naphthyl-N-methylcarbamate	63-25-2	17.0%	5 mg/m3 (OSAH & ACGIH)
Inert ingredients (non-hazardous and/or trade secret)		83.0%	Not established

3. HAZARD INFORMATION

PRECAUTIONARY STATEMENT
KEEP OUT OF THE REACH OF CHILDREN
HAZARDS TO HUMANS – CAUTION: Do not open package until ready to use. Do not allow children to play with this collar. May be harmful if swallowed. Avoid contact with eyes, skin, or clothing. Wash hands thoroughly with soap and water after handling collar.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Due to product form, method of use, and use history, human intoxication has not been reported. However, carbaryl is a cholinesterase inhibitor that may produce the following symptoms: nausea, vomiting, diarrhea, headache, tightness in chest, ataxia, anorexia, sweating, tearing, salivation, pin-point pupils, pulmonary edema, cyanosis, convulsions.

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

ACUTE TOXICITY

Oral:

Dermal: Due to the product form, it was not possible to perform the standard acute toxicity/irritation studies in laboratory animals. Based on the rate of Carbaryl release from the collars (4.25 to 7.5 mg/day), when worn by the animals, acute toxicity risk to human health is minimal under normal use conditions.

Inhalation:

OTHER TOXICOLOGICAL INFORMATION

Skin Irritation:

Eye Irritation:

Sensitizer:

4. FIRST AID MEASURES

Eye: Hold eyes open and rinse slowly with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eyes.

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

Ingestion: Call a poison control center or doctor immediately for treatment advice. Have a 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.

Inhalation: N/A

Note to Physician: Atropine and Homatropine is antidotal only if symptoms of cholinesterase inhibition are present.

5. FIRE FIGHTING MEASURES

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

Flammability Class: Combustible solid

Flash Point: N/A

Explosive Limits (% of Volume): N/A

Extinguishing Media: Water fog, foam, CO₂

Special Protective Equipment: Firefighters should wear full protective clothing including self contained breathing apparatus.

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

Combustion Products: May form methyl isocyanate gas; an irritant and strong lacrimator

Unusual Fire/Explosion Hazards: None known

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken: Because of individual packaging, possibilities of a release or spill are remote. However, should one occur, place in container for proper disposal

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

Incompatibles: Strong acids

7. HANDLING AND STORAGE

Handling: Wash hands and face thoroughly with soap and water after handling this product

Storage: Store in original unopened container away from children. Do not open protective pouch until ready to use.

8. EXPOSURE CONTROL / PERSONAL MEASURES

Exposure Limits: Carbaryl: 1-Naphthyl-N-methylcarbamate = 5 mg/m³ (OSHA PEL & ACGIH TLV)

Ventilation: General ventilation is sufficient.

Personal Protective Equipment: No special protective equipment is necessary for ordinary use. If prolonged exposure is anticipated, wear impervious gloves, goggles, and other protective clothing to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: White to off white colored plastic strips with dusty surfaces, very low odor.

Boiling Point: N/A

Melting Point: Not applicable

Vapor Pressure (mm Hg): N/A

Vapor Density (Air = 1): N/A

Specific Gravity: 1.2 (H₂O=1)

Bulk Density: Not applicable

Solubility: Negligible

Evaporation Rate: N/A

pH: Not applicable

10. STABILITY AND REACTIVITY

Stability: Stable

Reactivity: Non-reactive

Incompatibility w/ Other Materials: Strong acids

Decomposition Products: Methyl isocyanate gas, toxic fumes of Cl and oxides of nitrogen

Hazardous Polymerization: Will not occur

11. TOXICOLOGICAL INFORMATION

CHRONIC TOXICITY [Specific to Active Ingredient(s)]

No toxic effects were seen in rats administered up to 200 mg/kg of Carbaryl for 2 years. With higher dietary levels (1,500 and 2,250 mg/kg) diffuse, cloudy swelling of kidney tubules were seen after 96 days. There were observed marked functional and structural changes of the pituitary gland with impairment of thyroid and gonadal function found in rats administered 7, 14 and 70 mg/kg/body weight of Carbaryl for up to 12 months.

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

Carbaryl was administered to guinea pigs. At a near lethal dose for the mother (300 mg/kg), spinal abnormalities were produced in about one half of the surviving fetuses. Oral administration of 200 mg/kg of Carbaryl for three days a week for 90 days produced no significant histological changes in testes, epididymis, liver, and kidney of male rats. No marked biochemical changes were observed in the testes, liver and brain. Acetylcholine esterase activity in blood was found to be decreased. This dosage of Carbaryl did not affect the fertility of male rats. Carbaryl was administered in the diet of three generations of gerbils at dietary levels of 2,000, 4,000, 6,000 and 10,000 ppm. Reduced fertility was noted at 2,000 ppm, although a clear dose-response trend was not observed

MUTAGENICITY [Specific to Active Ingredient(s)]

The weight of evidence suggests that Carbaryl is not a mutagen.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE [Active Ingredients Only]

Hydrolysis: Not known

Photolysis: Not known

Soil half life: Not known

Water solubility: Negligible

ECOTOXICITY [Active Ingredients Only]

Acute Toxicity: fish:Not known; aquatic invertebrates:Not known

13. DISPOSAL CONSIDERATIONS

Do not reuse container or used collar. Wrap and put in trash. For large quantities, dispose of in state/EPA approved waste facility.

14. TRANSPORT INFORMATION

DOT49CFR Description: Not regulated as hazardous by U.S. DOT

Freight Classification: Collars, Animal insect repellent, NMFC 49998 Sub 1 Cl 100

15. REGULATORY INFORMATION

CERCLA (Superfund): Reportable Quantity (RQ) - Carbaryl = 1 lbs. Contact the National ResponseCenter (800)244-8802 for spills exceeding the RQ.

RCRA: Carbaryl - U279

SARA 311/312 HAZARD CATEGORIES

Immediate Health: Yes (irritation)

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.