

**Syngenta Crop Protection, LLC**  
**Post Office Box 18300**  
**Greensboro, NC 27419**

**In Case of Emergency, Call**  
**1-800-888-8372**

## 1. PRODUCT IDENTIFICATION

|                             |                                                                                                        |                     |            |
|-----------------------------|--------------------------------------------------------------------------------------------------------|---------------------|------------|
| Product Name:               | <b>TALON-G</b>                                                                                         | Product No.:        | A10976W    |
| EPA Signal Word:            | Caution                                                                                                |                     |            |
| Active Ingredient(%):       | Brodifacoum Technical (0.005%)                                                                         | CAS No.:            | 56073-10-0 |
| Chemical Name:              | 3-[3-(4'-bromo[1,1'-biphenyl]-4-yl)-1,2,3,4-tetrahydro-1-naphthalenyl]-4-hydroxy-2H-1-benzopyran-2-one |                     |            |
| Chemical Class:             | A coumarin-type anticoagulant rodenticide                                                              |                     |            |
| EPA Registration Number(s): | 100-1050, 100-1051, 100-1052, 100-1057                                                                 | Section(s) Revised: | 3          |

## 2. HAZARDS IDENTIFICATION

### Health and Environmental

Harmful in contact with skin. The active ingredient is designed to cause bleeding after repeated ingestion.

### Hazardous Decomposition Products

None known.

### Physical Properties

Appearance: Green pellets

Odor: Faint grain-like

### Unusual Fire, Explosion and Reactivity Hazards

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Material                                    | OSHA<br>PEL                                                            | ACGIH<br>TLV                                | Other                                                                     | NTP/IARC/OSHA<br>Carcinogen |
|---------------------------------------------|------------------------------------------------------------------------|---------------------------------------------|---------------------------------------------------------------------------|-----------------------------|
| Crystalline Silica, Quartz and Cristobalite | 10 mg/m <sup>3</sup> /(%SiO <sub>2</sub> +2)<br>(respirable dust)      | 0.025 mg/m <sup>3</sup> (respirable silica) | 0.05 mg/m <sup>3</sup><br>(respirable dust) **                            | IARC 1; ACGIH 1             |
| Kaolin Clay                                 | 15 mg/m <sup>3</sup> TWA (total); 5 mg/m <sup>3</sup> TWA (respirable) | 2 mg/m <sup>3</sup> TWA (respirable)        | 10 mg/m <sup>3</sup> TWA (total); 5 mg/m <sup>3</sup> TWA (respirable) ** | No                          |
| Brodifacoum Technical (0.005%)              | Not Established                                                        | Not Established                             | 0.002 mg/m <sup>3</sup> TWA<br>***                                        | No                          |

\*\* recommended by NIOSH

\*\*\* Syngenta Occupational Exposure Limit (OEL)

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.  
 Syngenta Hazard Category: A

## 4. FIRST AID MEASURES

Have the product container, label or Material Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison

control center or doctor, or going for treatment.

Ingestion: If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so after calling 800-888-8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Eye Contact: If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Skin Contact: If on skin or clothing: Take off contaminated clothing. Wash skin with soap and water.

Inhalation: If inhaled: Move person to fresh Not applicable.

#### Notes to Physician

This product may reduce the clotting ability of the blood and cause hemorrhaging. If poisoning occurs, intramuscular and oral administration of Vitamin K1 are indicated, as in poisoning from overdose of bishydroxy coumarin. For human cases, Vitamin K1 is antidotal at doses of 10 - 20 mg (not mg/kg). For animal cases, Vitamin K1 is antidotal at 2 - 5 mg/kg. Repeated doses may need to be given up to two weeks (based on monitoring of prothrombin time). In severe cases, blood transfusions may be necessary.

Further information is available from the Syngenta emergency number provided in this document.

#### Medical Condition Likely to be Aggravated by Exposure

As stated above this product contains anticoagulants with an effect similar to that of warfarin. The anticoagulant interferes with the synthesis of prothrombin. Significant exposure (e.g. ingestion) can cause anticoagulation effects and could aggravate existing blood clotting disorders.

## **5. FIRE FIGHTING MEASURES**

### Fire and Explosion

Flash Point (Test Method): > 375°F (paraffin wax) Method: PMCC  
Flammable Limits (% in Air): Lower: Not Applicable Upper: Not Applicable  
Autoignition Temperature: Not Available  
Flammability: Not Applicable

### Unusual Fire, Explosion and Reactivity Hazards

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

### In Case of Fire

Use dry chemical, foam or CO2 extinguishing media. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated.

## **6. ACCIDENTAL RELEASE MEASURES**

### In Case of Spill or Leak

Control the spill at its source. Clean up spills immediately, observing precautions outlined in Section 8. Sweep up material and place in a compatible disposal container. Once all material is collected, seal container and arrange for disposition.

## **7. HANDLING AND STORAGE**

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THIS PRODUCT.**

**FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.**

|               |                                                                                                                                                                                                                                                           |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ingestion:    | Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.                                                                    |
| Eye Contact:  | Eye protection is not required for normal handling. Where eye contact is likely, wear tight-fitting chemical goggles.                                                                                                                                     |
| Skin Contact: | Gloves are not required for normal handling. Where heavy contact is likely, wear chemical resistant (such as nitrile or butyl) gloves.                                                                                                                    |
| Inhalation:   | Respiratory protection is not required for normal handling. In the event of an unusual dust exposure, use engineering controls or a NIOSH-certified particulate respirator (N, P, R or HE filter) to keep exposure below the Occupational Exposure Limit. |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                           |                            |
|---------------------------|----------------------------|
| Appearance:               | Green pellets              |
| Odor:                     | Faint grain-like           |
| Melting Point:            | Not Available              |
| Boiling Point:            | 442 - 446 °F (Brodifacoum) |
| Specific Gravity/Density: | 40 lbs/ft <sup>3</sup>     |
| pH:                       | Not Available              |

### Solubility in H<sub>2</sub>O

|                        |           |
|------------------------|-----------|
| Brodifacoum Technical: | Insoluble |
|------------------------|-----------|

### Vapor Pressure

|                        |                                           |
|------------------------|-------------------------------------------|
| Brodifacoum Technical: | 6 x 10 <sup>(-6)</sup> mmHg @ 68°F (20°C) |
|------------------------|-------------------------------------------|

## 10. STABILITY AND REACTIVITY

|                                   |                                                 |
|-----------------------------------|-------------------------------------------------|
| Stability:                        | Stable under normal use and storage conditions. |
| Hazardous Polymerization:         | Will not occur.                                 |
| Conditions to Avoid:              | None known.                                     |
| Materials to Avoid:               | None known.                                     |
| Hazardous Decomposition Products: | None known.                                     |

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity/Irritation Studies (Finished Product)

|                     |                                           |                                           |
|---------------------|-------------------------------------------|-------------------------------------------|
| Ingestion:          | Oral (LD50 Rat) :                         | > 5000 mg/kg body weight                  |
| Dermal:             | Dermal (LD50 Rat) :                       | > 500 mg/kg body weight                   |
| Inhalation:         | Inhalation (LC50 Rat) :                   | See "Other Toxicity Information", Sec. 11 |
| Eye Contact:        | See "Other Toxicity Information", Sec. 11 |                                           |
| Skin Contact:       | See "Other Toxicity Information", Sec. 11 |                                           |
| Skin Sensitization: | Not Available                             |                                           |

### Reproductive/Developmental Effects

Brodifacoum Technical: Not teratogenic, embryotoxic or fetotoxic in rats or rabbits at doses up to 0.02 mg/kg/day - the dose causing excessive maternal toxicity.  
Non-genotoxic in a range of assays.

### Chronic/Subchronic Toxicity Studies

Brodifacoum Technical: The biological half-life for brodifacoum in body tissue in rats is > 100 days. Adverse clinical effects can develop from body accumulation. Prolonged prothrombin time, depression, pallor, subcutaneous hemorrhage, bleeding of nose or gums, gastrointestinal hemorrhage, cerebral hemorrhage, shock and death can develop following

exposures.  
No neurotox studies have been conducted.

#### Carcinogenicity

Brodifacoum Technical: Unlikely to be carcinogenic.

#### Other Toxicity Information

Effects of overexposure are those of anticoagulant overdose, i.e., reduced blood clotting ability with spontaneous bleeding in various organs. Body accumulation can result from repeated exposures since the half-life of brodifacoum is > 100 days. Individuals with blood clotting disorders may be more susceptible to overexposure effects.

Systemically toxic concentrations of this product will probably not be absorbed through human skin.

No toxic effects are known to be associated with inhalation of dust from this material.

No irritation is likely to develop following contact with human eyes.

Irritation will probably not develop following contact with human skin.

#### Toxicity of Other Components

Crystalline Silica, Quartz and Cristobalite

Chronic inhalation exposure to crystalline silica is known to cause silicosis and pulmonary fibrosis in humans.

Experimental animals exposed to crystalline silica developed respiratory tract cancers.

Kaolin Clay

May cause eye and respiratory tract irritation.

Long-term exposure to high concentrations of this dust may produce x-ray evidence of dust in the lungs.

Continued long-term exposure may affect respiratory function in some individuals.

#### Target Organs

##### Active Ingredients

Brodifacoum Technical: Blood

##### Inert Ingredients

Crystalline Silica, Quartz and Cristobalite: Respiratory tract

Kaolin Clay: Eye, respiratory tract, lung

## **12. ECOLOGICAL INFORMATION**

#### Ecotoxicity Effects

Brodifacoum Technical:

Fish (Rainbow Trout) 96-hour LC50 0.02 ppm

Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 0.98 ppm

Bird (Mallard Duck) 21-day LD50 0.26 mg/kg

#### Environmental Fate

Brodifacoum Technical:

The information presented here is for the active ingredient, brodifacoum.

Not persistent in soil. Stable in water. Immobile in soil. Sinks in water (after 24 h).

## **13. DISPOSAL CONSIDERATIONS**

#### Disposal

Do not reuse empty container except for holding additional product.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

## 14. TRANSPORT INFORMATION

### DOT Classification

Ground Transport - NAFTA  
Not regulated.

### Comments

Water Transport - International  
Not regulated.

Air Transport  
Not regulated.

## 15. REGULATORY INFORMATION

### EPCRA SARA Title III Classification

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: Not Applicable

### California Proposition 65

Not Applicable

### CERCLA/SARA 302 Reportable Quantity (RQ)

Not Applicable

### RCRA Hazardous Waste Classification (40 CFR 261)

Not Applicable

### TSCA Status

Exempt from TSCA, subject to FIFRA

## 16. OTHER INFORMATION

### NFPA Hazard Ratings

Health: 1  
Flammability: 1  
Instability: 0

### HMIS Hazard Ratings

Health: 1  
Flammability: 1  
Reactivity: 0

|   |          |
|---|----------|
| 0 | Minimal  |
| 1 | Slight   |
| 2 | Moderate |
| 3 | Serious  |
| 4 | Extreme  |

For non-emergency questions about this product call:

1-800-334-9481

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The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.

End of MSDS