



MATERIAL SAFETY DATA SHEET

Syngenta Crop Protection, Inc.
Post Office Box 18300
Greensboro, NC 27419

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

1. PRODUCT IDENTIFICATION

Product Name: **TALON G** Product No.: A10976C
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, 1051, 1052, 1057 (formerly 10182-334, 335, 336, 341) Section(s) Revised: All sections

2. COMPOSITION/INFORMATION ON INGREDIENTS

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Brodifacoum Technical (0.005%)	Not Established	Not Established	0.002 mg/m ³ TWA***	No

*** Syngenta Occupational Exposure Limit (OEL)

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

3. HAZARDS IDENTIFICATION

Symptoms of Acute Exposure

Slightly irritating to the eyes. The active ingredient is designed to cause bleeding after repeated ingestion.

Hazardous Decomposition Products

Can decompose at high temperatures forming toxic gases.

Physical Properties

Appearance: Green pellets
Odor: Faint grain-like

Distributed by:
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Unusual Fire, Explosion and Reactivity Hazards

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

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

Product Name: **TALON G**

Page: 1

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or doctor for treatment advice.

Skin Contact: If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Inhalation: If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call Syngenta (800-888-8372), a poison control center or doctor for further treatment advice.

Notes to Physician

There is no specific antidote if this product is ingested.

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.

Medical Condition Likely to be Aggravated by Exposure

None known.

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 flammable

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. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

Control the spill at its source. Contain the spill to prevent it from spreading, contaminating soil, or entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. If a solid, sweep up material and place in a compatible disposal container. If a liquid, cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, 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, PACKAGING AND USE OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND 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: Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Skin Contact: Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.

Inhalation: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below exposure limits. A NIOSH-certified combination air-purifying respirator with an N, P or R 95 or HE class filter and an organic vapor cartridge may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. Use a pressure demand atmosphere-supplying respirator if there is any potential for uncontrolled release, exposure levels are not known, or under any other circumstances where air-purifying respirators may not provide adequate protection.

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: 40.00 lbs./cu.ft.
 pH: Not Available

Solubility in H2O

Brodifacoum Technical: Insoluble

Vapor Pressure

Brodifacoum Technical: 6 x 10⁽⁻⁶⁾ 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: Can decompose at high temperatures forming toxic gases.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies (Finished Product)

Ingestion: Practically Non-Toxic
 Oral (LD50 Rat) : > 5,000 mg/kg body weight

Dermal: Moderately Toxic
 Dermal (LD50 Rabbit) : > 500 mg/kg body weight

Inhalation: Not Available
 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

Neurotoxicity

Brodifacoum No neurotox studies have been conducted.
 Technical:

Reproductive Effects

Brodifacoum Not teratogenic, embryotoxic or fetotoxic in rats or rabbits at doses up to 0.02 mg/kg/day - the dose causing excessive maternal toxicity.
 Technical: 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 150-200 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.

Carcinogenicity

Brodifacoum Technical: Unlikely to be carcinogenic.

Other Toxicity Information

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.

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 estimated to be 120 days. Individuals with blood clotting disorders may be more susceptible to overexposure effects.

Toxicity of Other Components

Not Applicable

Target Organs

Active Ingredients

Brodifacoum Technical: Blood

Inert Ingredients

: Not Applicable

12. ECOLOGICAL INFORMATION

Summary of Effects

Brodifacoum Technical:
Very toxic to aquatic organisms.

Eco-Acute Toxicity

Brodifacoum Technical: Rainbow Trout 96-hour LC50 0.051 mg/L
Daphnia magna 48 hours EC50 0.064 mg/L

Eco-Chronic Toxicity

Brodifacoum Technical: Not Available

Environmental Fate

Brodifacoum Technical:
No data available for the formulation. The information presented here is for the active ingredient, brodifacoum. A thorough review of environmental information is not possible in this document. For additional information call the toll free number listed in Section 16.
Soil/Environment: Degraded in soils (pH 5.5 to pH 8) under aerobic and flooded conditions. Koc (average) 50000, range 14000 - 106000; Kd 1040 (average), range 625 - 1320 DT50 >12 w. Unlikely to leach; <2% leached >2 cm in laboratory columns.

13. DISPOSAL CONSIDERATIONS

Disposal

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

14. TRANSPORT INFORMATION

DOT Classification

Not regulated by DOT.

B/L Freight Classification

Exterminator, Vermin, O/T Poison

Comments

None.

15. REGULATORY INFORMATION

EPCRA SARA Title III Classification

Section 311/312 Hazard Classes: Acute Health Hazard
Chronic Health Hazard

Section 313 Toxic Chemicals: Not Applicable

California Proposition 65

Not Applicable

CERCLA/SARA 302 Reportable Quantity (RQ)

Nonie

RCRA Hazardous Waste Classification (40 CFR 261)

Not Applicable

TSCA Status

Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

<u>NFPA Hazard Ratings</u>		<u>HMIS Hazard Ratings</u>		0	Minimal
Health:	1	Health:	1	1	Slight
Flammability:	1	Flammability:	1	2	Moderate
Instability:	0	Reactivity:	0	3	Serious
				4	Extreme

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 09/20/2000

Revision Date: 05/14/2002

Replaces:

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.

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End of MSDS