MATERIAL SAFETY DATA SHEET

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: **WEATHERBLOK XT** Product No.: A12720G

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): 100-1055 **Section(s) Revised: 14**

2. HAZARDS IDENTIFICATION

Health and Environmental

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

Hazardous Decomposition Products

None known.

Physical Properties

Appearance: Blue solid

Odor: Slight cereal and wax odor

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 PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Paraffin Wax	Not Established	2 mg/m³ TWA (fume)	2 mg/m³ TWA (fume) **	No
Oat Flour	10 mg/m³ PEL	4 mg/m³ TLV	Not Established	No
Brodifacoum Technical (0.005%)	Not Established	Not Established	0.002 mg/m³ TWA ***	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: D

4. FIRST AID MEASURES

Have the product container, label or Material Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison contol 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:	Not applicable.

Notes to Physician

This product contains anticoagulants with an effect similar to warfarin in that they act by interfering with the synthesis of prothrombin. The specific measure of effect is the prothrombin time. Note this may not become prolonged until 12-18 hours after ingestion. The specific antidote is Vitamin K1 (Phytomenandione BP).

Antidote must be administered under medical supervision. Initially, antidote should be given by injection (10-20 mg, or 0.25 mg/kg for children, by slow intravenous infusion at a rate not exceeding 1 mg/minute. In severe cases the use of fresh frozen plasma may be required). Maintenance treatment is given orally (40 mg/day in divided doses for adults; up to 20 mg/day in divided doses for children). The prothrombin time and the hemoglobin should be monitored. Patients should be kept under medical supervision until the prothrombin time has been normal for 3 consecutive days. Oral treatment may need to be continued for several months (20 mg/day in divided doses for adults, and up to 20 mg/day in divided doses for children). (For animal cases the dose is 2-5 mg/kg).

Each 20 g bar contains 1 mg of brodifacoum.

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:	Blue solid
Odor:	Slight cereal and wax odor
Melting Point:	130 °F (paraffin wax)
Boiling Point:	Not Applicable
Specific Gravity/Density:	1.15 g/ml
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:	None known.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies (Finished Product)

Ingestion:		
	Oral (LD50 Rabbit) :	> 5000 mg/kg body weight
Dermal:		
	Dermal (LD50 Rat) :	See "Other Toxicity Information", Sec. 11
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

Systemically toxic concentrations of this product will probably not be absorbed through human skin.
Because this product is a wax block, inhalation is not expected to be a normal route of exposure.
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 > 100 days. Individuals with blood clotting disorders may be more susceptible to overexposure effects.

Toxicity of Other Components

Oat Flour

In normal use this product does not present a serious health risk and ingestion has no adverse effects.

Paraffin Wax

Inhalation of fumes may cause nausea and irritation. Good laboratory procedures are recommended when handling this compound. This is expected to be a low hazard for usual industrial handling.

Target Organs

Active Ingredients

Brodifacoum Technical: Blood

Inert Ingredients

Oat Flour: Lung

Paraffin Wax: Not Applicable

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)

None

RCRA Hazardous Waste Classification (40 CFR 261)

Not Applicable

TSCA Status

Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

NFPA Hazard Ratings		HMIS Hazard Ratings	
Health:	1	Health:	1
Flammability:	1	Flammability:	1
Instability:	0	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