

# Material Safety Data Sheet

## Knox Fertilizer Company, Inc.

### SECTION 1

### PRODUCT IDENTIFICATION

**TRADE NAME:** **Shaw's® Turf Food Insect Control 57, 86, 100, 133/Mach 2™**

**EPA REGISTRATION NO:** 62719-474-8378, 62719-475-8378, 62719-489-8378, 62719-490-8378

**CHEMICAL FAMILY:** Fertilizer with Halofenozide Insecticide

**CHEMICAL NAME/SYNONYMS:** Mach 2™, Halofenozide

**MANUFACTURER/FORMULATOR:** Knox Fertilizer Co., Inc

P.O. Box 248

Knox, IN 46534

**EMERGENCY PHONE:** 1.800.424.9300

### SECTION 2

### COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Ingredients	CAS No.	% by Weight	PEL/TLV
Halofenozide	112226-61-6	0.57 – 1.33	None Established
Inert Ingredients		99.43 – 98.67	

### SECTION 3

### HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:** Likely Routes of Exposure: Skin, Eyes, Inhalation, Ingestion.

**POTENTIAL HEALTH EFFECTS:**

Harmful if swallowed or absorbed through skin. Dusts may cause moderate eye irritation. Avoid contact with skin, eyes, or clothing.

**Eye Contact:** Solid or dust may cause eye irritation or corneal injury due to mechanical action.

**Skin Contact:** Prolonged contact may cause slight skin irritation with local redness. May cause skin irritation due to mechanical abrasion.

**Ingestion:** Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

**Inhalation:** Dust may cause irritation of the upper respiratory tract and lungs.

**Medical Conditions Aggravated by Exposure:** No known medical conditions are known which may be aggravated by exposure to active ingredient.

**POTENTIAL ENVIRONMENTAL EFFECTS:**

For terrestrial use only. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters. This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

**SECTION 4****FIRST AID MEASURES**

**EYES:** 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. 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. Call a poison control center or doctor for treatment advice.

**INGESTION:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

**INHALATION:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration preferably by mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

**NOTES TO MEDICAL DOCTOR:** No known antidote is available. Treat patient symptomatically.

**SECTION 5****FIRE FIGHTING MEASURES**

**FLASH POINT (Method):**

Not Applicable

**FLAMMABLE LIMITS (LEL & UEL):**

Not Applicable

**EXTINGUISHING MEDIA:**

Dry chemical, CO<sub>2</sub>, alcohol resistant foam, water spray or fog.

**HAZARDOUS COMBUSTION PRODUCTS:**

May include but are not limited to oxides of carbon, hydrogen chloride, hydrogen fluoride, oxides of nitrogen, oxides of phosphorus, oxides of sulfur, hydrogen sulfide.

**SPECIAL FIRE FIGHTING PROCEDURES:**

Use water spray to cool containers exposed to fire. Remain upwind. Avoid breathing smoke. Wear self-contained breathing apparatus and full protective gear. Contain run-off by diking to prevent entry into sewers or waterway. Fertilizer will become slippery when wet; guard against falls.

**UNUSUAL FIRE & EXPLOSION HAZARDS:**

If heated to decomposition, the fertilizer contained in this product will give off toxic vapors of ammonia and formaldehyde. Under fire conditions, urea may decompose to cyanuric acid, biuret or ammonia. Dispersion of fine dust in the air may form an explosive mixture.

**SECTION 6****ACCIDENTAL RELEASE MEASURES**

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:** If material is spilled, sweep small spills of material into a covered container for proper disposal. If possible, reuse the material for its intended purpose. Rinse the spill area and any tools or implements several times with soapy water. Contain and absorb this rinsate with inert absorbents such as granular clay or sawdust, and place into the same covered container as the spilled material. Report large spills to Dow AgroSciences at 800.992.5995.

**SECTION 7****HANDLING AND STORAGE**

Store in a cool, dry, well-ventilated area. Prevent cross contamination with other materials. Store in original container and out of reach of children. Open dumping is prohibited. Avoid temperature extremes during storage; ambient temperature preferred for storage. Do not contaminate water, food, or feed by storage or disposal. Keep container tightly closed when not in use.

Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling.

**SECTION 8****EXPOSURE CONTROL/PERSONAL PROTECTION**

<b>ENGINEERING CONTROLS:</b>	Use only with adequate ventilation. Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.
<b>RESPIRATORY PROTECTION:</b>	In dusty or misty atmospheres, wear a NIOSH approved particulate respirator.
<b>EYE PROTECTION:</b>	Chemical goggles or shielded safety glasses.
<b>SKIN PROTECTION:</b>	Wear protective clothing: long-sleeved shirts and long pants, socks and shoes. The use of cloth gloves is recommended.
<b>WORKER HYGENIC PRACTICES:</b>	Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
<b>GENERAL COMMENTS:</b>	Wash PPE separately from other laundry.

**SECTION 9****PHYSICAL AND CHEMICAL PROPERTIES**

<b>APPEARANCE AND ODOR:</b> Multi-colored granules with mild amine-like odor.	
<b>SPECIFIC GRAVITY:</b> Not Applicable	<b>SOLUBILITY IN WATER:</b> Not Soluble
<b>VAPOR PRESSURE:</b> Not Applicable	<b>VAPOR DENSITY:</b> Not Applicable
<b>BOILING POINT:</b> Not Applicable	<b>MELTING POINT:</b> Not Applicable
<b>PERCENT VOLATILE:</b> Not Applicable	<b>pH:</b> Not Applicable
<b>EVAPORATION RATE:</b> Not Applicable	<b>BULK DENSITY:</b> 45 – 65 lbs./cu ft.

**SECTION 10****STABILITY AND REACTIVITY**

<b>STABILITY:</b>	Stable
<b>CONDITIONS TO AVOID:</b>	None known
<b>INCOMPATIBLE MATERIALS:</b>	Strong oxidizers
<b>HAZARDOUS POLYMERIZATION:</b>	Not known to occur.
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	If heated to decomposition, may give off ammonia and formaldehyde as well as cyanuric acid, biuret and oxides of nitrogen, carbon and sulfur,

**SECTION 11****TOXICOLOGICAL INFORMATION****TOXICOLOGICAL DATA:**

<b>Oral:</b> Rat LD <sub>50</sub> : 2850 mg/kg	<b>Dermal:</b> Rat LD <sub>50</sub> : >2,000 mg/kg
<b>Inhalation:</b> 4-hr LC <sub>50</sub> : >2.7 mg/l	
<b>Eye Irritation:</b> Moderate irritation due to mechanical action.	
<b>Skin Irritation:</b> Prolonged contact may cause slight skin irritation with local redness.	
<b>Skin Sensitization:</b> Not a dermal sensitizer.	

**ACUTE EFFECTS:** May cause moderate eye irritation and prolonged contact may cause slight skin irritation and local redness.

**CHRONIC EFFECTS:** None known

**CARCINOGENICTY:** Not listed as a carcinogen

**SECTION 12****ECOLOGICAL INFORMATION**

**ENVIRONMENTAL DATA:** Expected to be relatively immobile in the soil (Koc >5000).

**ECOTOXICOLOGICAL DATA:** The active ingredient in this product is moderately toxic to aquatic invertebrates and practically non-toxic to birds on an acute basis. On a dietary basis, it is slightly toxic to birds.

**SECTION 13****DISPOSAL CONSIDERATIONS**

**PRODUCT DISPOSAL:** Waste resulting from the use of this product that cannot be used according to label instructions may be disposed of on site or in an approved waste disposal facility.

**CONTAINER DISPOSAL:** Do not reuse bag. Completely empty bag into application equipment. Dispose of emptied bag(s) in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Do not contaminate water, food, or feed by storage or disposal.

**SECTION 14****TRANSPORT INFORMATION**

**DOT SHIPPING DESCRIPTION:** Not regulated  
**U.S. SURFACE FREIGHT CLASSIFICATION:** Fertilizing compounds, NOI; Dry (NMFC 68140, Sub 5; Class 50)

**SECTION 15****REGULATORY INFORMATION****SARA TITLE III****SEC 311/312:**

Y Immediate (Acute Health)

N Delayed (Chronic Health)

N Fire

N Sudden Release of Pressure

Y Reactivity

**SEC 302:** Not Applicable

**SEC 304:** Not Applicable

**SEC 313:** Not Applicable

**CERCLA RQ:** Not Applicable

**CAA RQ:** Not Applicable

**National Fire Protection Association (NFPA) Ratings:**

Health: 2

Fire: 0

Reactivity: 1

Specific: none

**SECTION 16****OTHER INFORMATION**

**Issue Date:** 26 OCT 2005

**Supersedes MSDS Dated:** 4 JAN 2003

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