

Material Safety Data Sheet

Knox Fertilizer Company, Inc.

SECTION 1

PRODUCT IDENTIFICATION

TRADE NAME: **Shaw's® Bed & Edge Weed Control™**

EPA REGISTRATION NO: 62719-565-8378

CHEMICAL FAMILY: Fertilizer with Herbicide
CHEMICAL NAME/SYNONYMS: Benefin + Trifluralin + Isoxaben

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
Benefin	1861-40-1	0.50%	None Established
Trifluralin	1582-09-8	0.50%	None Established
Isoxaben	82558-50-7	0.38%	None Established
Inert Ingredients, Total, including:		98.62%	
Clay contains	8031-18-3		
Crystalline Silica	14808-60-7		

SECTION 3

HAZARDS IDENTIFICATION

CAUTION: KEEP OUT OF REACH OF CHILDREN

Yellow free flowing granules with slight aromatic odor. Primary routes of entry are inhalation and skin contact.

POTENTIAL HEALTH EFFECTS: This section includes possible adverse effects which could occur if this material is not handled in the recommended manner.

EYE: May cause moderate eye irritation with slight corneal injury.

SKIN: Prolonged contact may cause slight skin irritation with local redness. Prolonged skin is unlikely to result in absorption of harmful amounts. Did not cause allergic skin reactions when tested in guinea pigs. The LD₅₀ for skin absorption in rabbits is >5,000 mg/kg.

INGESTION: Low toxicity if swallowed. The oral LD₅₀ for rats is >2,500 mg/kg. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury.

INHALATION: Excessive exposure may cause irritation to upper respiratory tract (nose and throat). The LC₅₀ for rats is >4.6 mg/L (males) and between 0.5 and 4.6 mg/L (females) for four hours.

SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: Isoxaben, in animals, effects have been reported on the following organs: kidney and liver. Repeated excessive exposure to crystalline silica may cause silicosis, a progressive and disabling disease of the lungs. Some evidence suggests that kidney effects may result from excessive exposures also.

CANCER INFORMATION: This mixture contains crystalline silica, which is listed as a carcinogen for hazard communication under OSHA Standard 29 CFR 1910.1200. Crystalline silica is listed by IARC and NTP. Crystalline silica has been shown to cause cancer in laboratory animals and humans. A low incidence of urinary tract tumors were seen in only 1 of 5 chronic studies in rats with Trifluralin. Trifluralin is not anticipated to be a carcinogenic risk to man. An increase in non-malignant liver tumors was observed with Isoxaben in one of two species tested.

TERATOLOGY (BIRTH DEFECTS): Trifluralin did not cause birth defects in animal; other fetal effects occurred only at doses toxic to the mother.

REPRODUCTIVE EFFECTS: Isoxaben has been shown to interfere with reproduction in animal studies.

SECTION 4

FIRST AID MEASURES

EYES: Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Seek medical attention without delay, preferably from an ophthalmologist.

SKIN: In case of contact, immediately wash with plenty of soap and water for at least 15 minutes.

INGESTION: If swallowed, seek immediate medical attention. Do not induce vomiting unless directed to do so by medical personnel.

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.

NOTE TO PHYSICIAN: All treatment should be based on observed signs and symptoms of distress in the patient. Treat symptomatically. No specific antidote available.

SECTION 5

FIRE FIGHTING MEASURES

FLASH POINT (Method):

Not Applicable

FLAMMABLE LIMITS (LFL & UFL):

Not Applicable

EXTINGUISHING MEDIA:

Considered non-combustible. Use medium appropriate to surrounding fire: Dry chemical or CO₂.

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. Dike areas to prevent runoff and contamination of water sources. Dispose of dike control water later.

SECTION 6**ACCIDENTAL RELEASE MEASURES**

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Avoid breathing dusts. Sweep up dry spills immediately and transfer to suitable containers for land application according to labeled use or for disposal. Check local, state and federal regulations for proper disposal.

CAUTION: Keep spills and cleaning run-off out of municipal sewer systems and open bodies of water.

SECTION 7**HANDLING AND STORAGE**

HANDLING: Store in a cool dry place away from children, feed, food products, and seed. Do not contaminate water, food or feed by storage or disposal. Keep away from heat, sparks, open flame and other ignition sources. Avoid contact with eyes, skin and clothing. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

OTHER PRECAUTIONS: Do not apply directly to water or wetlands. Drift or runoff from treatment areas may be hazardous to aquatic organisms in neighboring aquatic sites.

SECTION 8**EXPOSURE CONTROL/PERSONAL PROTECTION**

**ENGINEERING CONTROLS:
RESPIRATORY PROTECTION:**

Not normally required.
Not normally required. If vapors or dusts exceed acceptable levels, wear a MSHA/NIOSH approved pesticide respirator.

**EYE PROTECTION:
SKIN PROTECTION:**

Chemical goggles or shielded safety glasses.
Wear protective clothing: long-sleeved shirts and pants, hat, rubber boots with socks. Wear rubber or chemical-resistant gloves.

WORKER HYGENIC PRACTICES:

After using product, remove clothing and launder separately before reuse. Promptly and thoroughly wash hands and exposed skin with soap and water. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

GENERAL COMMENTS:

Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.

SECTION 9**PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE AND ODOR: Yellow, free flowing granules with slight amine, fish-like odor.

SPECIFIC GRAVITY: Not Applicable

VAPOR PRESSURE: Not Applicable

BOILING POINT: Not Applicable

PERCENT VOLATILE: Not Applicable

EVAPORATION RATE: Not Applicable

SOLUBILITY IN WATER: Not Soluble

VAPOR DENSITY: Not Applicable

MELTING POINT: Not Applicable

pH: Not Applicable

BULK DENSITY: 45 – 65 lbs./cu ft.

SECTION 10**STABILITY AND REACTIVITY**

STABILITY:	Stable
CONDITIONS TO AVOID:	None known
INCOMPATIBLE MATERIALS:	Strong oxidizers or strong alkalis
HAZARDOUS DECOMPOSITION PRODUCTS:	Oxides of nitrogen, carbon and sulfur
HAZARDOUS POLYMERIZATION:	Not known to occur.

SECTION 11**TOXICOLOGICAL INFORMATION**

ACUTE DERMAL LC₅₀: >5,000 mg/kg	ACUTE ORAL LD₅₀: >2,500 mg/kg
EYE EFFECTS: May cause moderate irritation with corneal injury	SKIN EFFECTS: May cause irritation
INHALATION: May cause respiratory tract irritation	INGESTION: May cause stomach distress, nausea or vomiting
CARCINOGENIC POTENTIAL: Not listed: OSHA, NTP, IARC, ACGIH	

SECTION 12**ECOLOGICAL INFORMATION**

ENVIRONMENTAL DATA: No data available.

SECTION 13**DISPOSAL CONSIDERATIONS**

PRODUCT DISPOSAL: Waste resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

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.

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)
Y Delayed (Chronic Health)
N Fire
N Sudden Release of Pressure
N Reactivity

SEC 302: Not Applicable
SEC 304: Not Applicable
SEC 313: Trifluralin
CERCLA RQ: 10 (Trifluralin)
CAA RQ: 1 lb. (Trifluralin)

National Fire Protection Association (NFPA) Ratings:

Health: 2 Fire: 1 Reactivity: 0 Specific: none

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Supercedes MSDS Dated: NEW

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