



NFPA HAZARD RATING				U.S. TRANSPORT SUMMARY	
0	Least				Regulated by the U.S. DOT as a hazardous material in quantities of 270 gallons or greater. See Section 14 for full information.
1	Slight	2	Health		
2	Moderate	1	Flammability		
3	High	0	Reactivity		
4	Severe				

SECTION 1: IDENTIFICATION	
<b>Product Name:</b> Bison® Herbicide <b>EPA Registration #:</b> 9779-347 <b>Product ID/Unity #:</b> 10013227, 10014648, 10014649, 10014653, 10050984, 10127521, 10127824, 1427287 <b>Common Name:</b> Bromoxynil octanoate ester + MCPA ethylhexyl ester <b>Chemical Description:</b> Benzonitrile and phenoxy herbicides <b>Recommended Uses:</b> Agricultural herbicide. See product labels for complete list of uses and use sites. <b>Restrictions for Use:</b> See product label for information regarding restrictions on the use of this product.	<b>MEDICAL EMERGENCY TELEPHONE NUMBER: 1-877-424-7452 (24hrs)</b>  <b>Non-Emergency Business Inquiries: 1-855-494-6343</b> Mon – Fri 8am – 5pm (Central Standard Time)
<b>Manufactured For:</b> WINFIELD SOLUTIONS, LLC P. O. Box 64589 St. Paul, MN 55164-0589	
<b>FOR EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT, CALL:</b> CHEMTREC 1-800-424-9300 (24 hours)	

SECTION 2: HAZARDS IDENTIFICATION	
<b>EMERGENCY OVERVIEW:</b> Liquid with slight amine like odor. Harmful if swallowed. Causes moderate eye irritation. Toxic to wildlife and fish. May release toxic fumes if burned.	
<b>POTENTIAL HEALTH EFFECTS:</b> <b>Eyes:</b> Causes moderate eye irritation. <b>Skin:</b> May cause mild to moderate skin irritation and is a potential skin sensitizer. <b>Inhalation:</b> May cause irritation of the upper respiratory tract. <b>Ingestion:</b> Harmful if swallowed. <b>Preexisting Conditions:</b> None known. <b>Chronic Health Effects:</b> Naphthalene, present at less than 4.0% is a suspected human carcinogen.	
<b>Carcinogenicity</b>	NTP: Naphthalene (Suspected)      IARC: Naphthalene (Group 2B)      OSHA: Not listed
<b>OSHA HCS 2012 CLASSIFICATION:</b> Eye Corrosion/Irritation Category 2A; Acute Oral Toxicity Category 3	
<b>SIGNAL WORD:</b> DANGER	
<b>HAZARD STATEMENTS:</b> Causes serious eye irritation. Toxic if swallowed	
<b>Percent of product with unknown toxicity:</b> 0%	
<b>PRECAUTIONARY STATEMENTS:</b> <b>Prevention:</b> Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Wear eye and face protection. <b>Response:</b> <b>If Swallowed:</b> Immediately call a poison control center (1-877-424-7452) or doctor for treatment advice. Rinse mouth. <b>If in eyes:</b> Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.	

*Continued on next page*

**Storage:** Store locked up.  
**Disposal:** Dispose of contents/container in accordance with Federal, state and local regulations.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Ingredient	% (wt)	CAS Reg. #
Bromoxynil octanoate	31.7%	1689-99-2
MCPA ethylhexyl ester	34.0%	29450-45-1
Naphthalene	<4.0%	91-20-3
*Ingredients not specifically listed are non-hazardous and are considered to be confidential business information under 29 CFR 1910.1200(j).		
See Section 8 for exposure limits.		

**SECTION 4: FIRST AID MEASURES**

**Inhalation:** Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if irritation occurs.

**Ingestion:** Seek medical attention or call a poison control center immediately for treatment advice. Do not induce vomiting unless instructed to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**Eyes:** Flush eyes with clean water for at least 15 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. Seek medical attention if irritation persists.

**Skin:** Remove contaminated clothing and wash before re-using. Flush skin with water and then wash with soap and water. Seek medical attention if irritation persists.

**Note to Physician:** Contains petroleum distillate, vomiting may cause aspiration pneumonia. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**SECTION 5: FIRE FIGHTING MEASURES**

**Suitable Extinguishing Media:** Foam, dry chemical, carbon dioxide or water spray.

**Special Fire Fighting Procedures:** Wear NIOSH/MSHA approved self-contained breathing apparatus and full bunker gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later. Avoid breathing vapors; keep upwind. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water run-off.

**Hazardous Combustion Products:** Hydrogen chloride, hydrogen bromide, nitrogen oxides, sulfur oxides and oxides of carbon.

**Unusual Fire and Explosion Hazards:** May decompose in fire, releasing irritating and toxic gases.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Personal Precautions:** Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.

**Environmental Precautions:** Do not allow spilled product or washings to enter sewers or waterways.

**Methods for Containment:** Contain spilled product by diking area with sand or earth.

**Methods for Clean-up:** Cover spilled product with an inert absorbent material such as sand, vermiculite or other appropriate material. Vacuum, scoop or sweep up material and place in a container for disposal. Do not place spilled material back in original container.

**Other Information:** Spills of this product may require reporting under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as the product contains Naphthalene with a reportable quantity (RQ) of 100 lbs. See Section 15 for additional information.

## SECTION 7: HANDLING AND STORAGE

**Handling:** RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS AND WORKERS must refer to the pesticide product label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Ensure adequate ventilation. Immediately clean up spills that occur during handling. Keep containers closed when not in use. Practice good hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

**Storage:** Store in cool, dry areas away from children, feed and food products and sources of heat. Store in original container with lid tightly closed. Do not store in direct sunlight. See pesticide product label for additional storage information.

**Minimum Storage Temperature:** 35°F

**Other Precautions:** Consult Federal, state and local laws and regulations pertaining to storage.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

## Exposure Guidelines

Component:	OSHA PEL	ACGIH TLV	NIOSH REL
Naphthalene	50 mg/m <sup>3</sup> , 10ppm	10 ppm	

**Respiratory Protection:** In areas with inadequate ventilation or where exposure limits are exceeded, use a NIOSH approved respirator with cartridges/canisters approved for organic vapors.

**Engineering Controls:** **Local Exhaust:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred.

**Protective Gloves:** Wear chemical resistant gloves to prevent skin exposure.

**Eye Protection:** Wear chemical goggles or safety glasses and full-face shield. Contact lenses are not eye protective devices. An emergency eyewash or water supply should be readily accessible to the work area.

**Other Protective Clothing or Equipment:** Wear long sleeve shirt, long pants and chemical resistant footwear plus socks to prevent skin exposure. Wear a chemical resistant apron when mixing or loading.

**Work/Hygienic Practices:** Never eat, drink, nor use tobacco in work areas. Practice good hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State:</b>	Liquid	<b>Specific Gravity (H<sub>2</sub>O=1):</b>	1.09 – 1.13
<b>Vapor Pressure (mm Hg):</b>	Not determined	<b>Density (lbs/gallon):</b>	9.10 – 9.43 lbs/gallon
<b>Vapor Density (Air=1):</b>	Not determined	<b>Melting Point/Freezing Point:</b>	Not determined
<b>Solubility in Water (wt %):</b>	Emulsifies	<b>Boiling Point/Range:</b>	Not determined
<b>Viscosity:</b>	8.82 cSt	<b>pH:</b>	2.7 – 3.7
<b>Appearance and odor:</b>	Liquid with slight amine like odor	<b>Flash Point:</b>	>200°F

## SECTION 10: STABILITY AND REACTIVITY

**Reactivity:** None known

**Chemical Stability:** Product is stable at ambient temperature and pressure, under normal storage and handling conditions.

**Possibility of Hazardous Reactions:** Will not occur.

**Conditions to Avoid:** Avoid temperatures above 115°F (46°C) and below 25°F (-5°C).

**Incompatible Materials:** Acidic and oxidizing materials, halogenated organics, brass, copper, zinc and aluminum metals.

**Hazardous Decomposition Products:** Hydrogen chloride, hydrogen bromide, nitrogen oxides, sulfur oxides and oxides of carbon.

## SECTION 11: TOXICOLOGICAL INFORMATION

**ACUTE TOXICITY**

Eye Effects:	Mildly irritating (rabbit)
Skin Effects:	LD50 >5,050 mg/kg; Slightly irritating (rabbit); Not a skin sensitizer
Acute Inhalation Effects:	LC50 >2.68 mg/L
Acute Oral Effects:	LD50 = 70 mg/kg
Specific Target Organ Toxicity:	Not determined

**CHRONIC TOXICITY**

Chronic Effects:	Not determined
Carcinogenicity:	Naphthalene is a suspected human carcinogen.
Mutagenicity:	No evidence of mutagenic effects during <i>in vivo</i> or <i>in vitro</i> studies.
Teratogenicity:	Bromoxynil phenol is considered a possible developmental toxicant.
Reproductive Toxicity:	Not determined

**POTENTIAL HEALTH EFFECTS:**

<b>Eyes:</b>	Causes moderate eye irritation.
<b>Skin:</b>	May cause mild to moderate skin irritation and is a potential skin sensitizer.
<b>Inhalation:</b>	May cause irritation of the upper respiratory tract.
<b>Ingestion:</b>	Harmful if swallowed.

## SECTION 12: ECOLOGICAL INFORMATION

**ENVIRONMENTAL SUMMARY:** This pesticide is toxic to wildlife and fish. Do not contaminate water when disposing of equipment washwaters.

**ECOTOXICITY DATA:**

<b>Fish Acute and Prolonged Toxicity:</b>	Bromoxynil octanoate acid: Rainbow trout 96 hr LC50 = 0.05 ppm
	Bluegill 96 hr LC50 = 0.05 ppm
	MCPA acid: Rainbow trout 96 hr LC50 = 230 mg/L
	Bluegill 96 hr LC50 is unknown
<b>Aquatic Invertebrate Acute Toxicity:</b>	Not determined
<b>Aquatic Plant Toxicity:</b>	Not determined
<b>Bird Acute and Prolonged Toxicity:</b>	Bromoxynil octanoate acid: Bobwhite quail oral LD50 = 145 mg/kg
	Mallard duck oral LD50 = 2,050 mg/kg
	MCPA acid: Bobwhite quail oral LD50 = 370 mg/kg
	Mallard duck oral LD50 is unknown
<b>Honeybee Toxicity:</b>	Bromoxynil octanoate = 14 µg/bee; MCPA acid >100 µg/bee

**ENVIRONMENTAL EFFECTS:**

<b>Soil Absorption/Mobility:</b>	Not determined
<b>Persistence and degradability:</b>	Bromoxynil octanoate de-estifies rapidly to the parent phenol after application. Bromoxynil phenol is very mobile in the soil and slightly persistent with a half-life of 1-35 days depending on soil types and weather conditions. MCPA ethylhexyl ester de-estifies to the parent acid in the environment which has a half-life of 10-14 days depending on the soil type.
<b>Bioaccumulative Potential:</b>	Not determined
<b>Other adverse effects:</b>	Not determined

## SECTION 13: DISPOSAL CONSIDERATIONS

**Waste:** Dispose of in accordance with applicable Federal, state and local laws and regulations.  
**Container:** Triple rinse and recycle the container or dispose of in accordance with Federal, state and local laws and regulations. See pesticide product label for full instructions on disposal.  
**RCRA Characteristics:** It is the responsibility of the individual disposing of this product to determine the RCRA classification and hazard status of the waste.

## SECTION 14: TRANSPORT INFORMATION

<b>DOT: (Ground)</b>	This product is not regulated as a hazardous material by the U.S. DOT in quantities less than 270 gallons. For quantities of 325 gallons or greater: UN3082, Environmentally Hazardous Substance, Liquid, N.O.S., (Naphthalene), 9, PG III, RQ
<b>IMDG: (Sea)</b>	Not determined
<b>IATA: (Air)</b>	Not determined
<b>TDG: (Canada)</b>	Not determined

## SECTION 15: REGULATORY INFORMATION

<p><b>TSCA Inventory:</b> This product is exempt from TSCA inventory listing requirements as it is solely for FIFRA regulated use.</p> <p><b>SARA Title III Information:</b></p> <p><b>Section 302 - Extremely hazardous substances:</b> None listed</p> <p><b>Section 311/312 - Hazard Categories:</b> Immediate (Acute)</p> <p><b>Section 313 -</b> The following chemicals are subject to the reporting requirements of Section 313 of Title III, Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372: Naphthalene (CAS #91-20-3) &lt;4.0%</p> <p><b>CERCLA -</b> This product contains the following chemicals which have a reportable quantity (RQ) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): Naphthalene (CAS #91-20-3) has an RQ of 100 lbs (reached with 270 gallons of product)</p> <p><b>EPA Registration Information:</b> This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:</p> <p><b>WARNING</b> May be fatal if swallowed. Harmful if absorbed through skin or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist.</p> <p><b>California Proposition 65: WARNING:</b> This product contains a chemical known to the state of California to cause cancer and/or reproductive harm.</p> <p><b>U.S. State Worker and Community Right-To-Know (RTK) Information (CT, IL, MA, MN, NH, NJ, PA, RI):</b></p> <table border="1"> <thead> <tr> <th>Chemical Name</th> <th>CAS #</th> <th>State(s)</th> </tr> </thead> <tbody> <tr> <td>Bromoxynil octanoate</td> <td>1689-99-2</td> <td>NJ</td> </tr> <tr> <td>Naphthalene</td> <td>91-20-3</td> <td>NJ, PA</td> </tr> </tbody> </table> <p><b>Canadian Domestic Substances List:</b> Not determined</p> <p><b>WHMIS Classification:</b> This product is not registered for use in Canada. WHMIS classification is not determined</p>			Chemical Name	CAS #	State(s)	Bromoxynil octanoate	1689-99-2	NJ	Naphthalene	91-20-3	NJ, PA
Chemical Name	CAS #	State(s)									
Bromoxynil octanoate	1689-99-2	NJ									
Naphthalene	91-20-3	NJ, PA									

## SECTION 16: OTHER

<p><b>Disclaimer:</b> The information presented herein is based on available data from reliable sources and is correct to the best of WinField Solutions' knowledge. WinField Solutions, LLC makes no warranty, express nor implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions. We disclaim all liability for injury or damage stemming from any improper use of the material or product described herein.</p> <p><b>Revision Date:</b> May 28, 2015      <b>Supersedes document dated:</b> October 21, 2013</p> <p><b>Sections Revised:</b> 2,3,4,8,9,11,12,14,15</p>	
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