




NFPA HAZARD RATING				U.S. TRANSPORT SUMMARY	
0	Least				Regulated in quantities of 119 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	
Product Name:	Carnivore®
EPA Registration #:	1381-249
Product ID/Unity #:	1407812, 1555850
Common Name:	Mixture of MCPA, Bromoxynil octanoate, and Fluroxypyr
Chemical Description:	Bromoxynil octanoate, Fluroxypyr-1-methylheptyl ester and MCPA-EHE
Recommended Uses:	Agricultural Herbicide. See product label for complete list of recommended uses and use site.
Restrictions for Use:	See product label for information regarding restrictions on the use of this product
Manufactured For: WINFIELD SOLUTIONS, LLC P. O. Box 64589 St. Paul, MN 55164-0589	MEDICAL EMERGENCY TELEPHONE NUMBER: 1-877-424-7452 (24hrs) Non-Emergency Business Inquiries: 1-855-494-6343 Mon – Fri 8am – 5pm (Central Standard Time)
FOR EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT, CALL: CHEMTREC 1-800-424-9300 (24 hours)	

SECTION 2: HAZARDS IDENTIFICATION	
OSHA HCS 2012 CLASSIFICATION: This chemical is considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200). Aspirational toxicant: Category 1; Acute Oral Toxicity Category 4; Acute Inhalation Toxicity Category 4; Carcinogenicity Category 2; Reproductive Toxicant Category 2; Specific Target Organ Toxicity Repeated Exposure: Category 2	
EMERGENCY OVERVIEW	
Appearance: Light to dark amber	Physical State: Liquid
Odor: Aromatic odor.	
SIGNAL WORD: DANGER	
HAZARD STATEMENTS: May be fatal if swallowed and enters airways. Harmful if swallowed. Harmful if inhaled. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.	
 	
PRECAUTIONARY STATEMENTS:	
Prevention:	Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe mist, vapors, or spray. Use only outdoors or in a well-ventilated area. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye protection and face protection.
Response:	If Swallowed: Immediately call a poison control center (1-877-424-7452) or doctor for treatment advice. Do not induce vomiting. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison control center (1-877-424-7452) or doctor for treatment advice if you feel unwell.
General Advice	If exposed or concerned if you feel unwell: Get medical attention.
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. #
2-methyl-4-chlorophenoxyacetic acid, isooctyl (2-ethylhexyl) ester	27.30	29450-45-1
Octanoate acid ester of bromoxynil	25.48%	1689-99-2
Fluroxypyr 1-methylheptyl ester	10.08%	81406-37-3
Solvent naphtha (may contain)	28.0 – 32.0%	64742-94-5
1-Methylnaphthalene	<8.0%	90-12-0
2-Methylnaphthalene	<12.0%	91-57-6
Naphthalene	<5.0%	91-20-3
*Ingredients not specifically listed are non-hazardous and/or are considered to be confidential business information under 29 CFR 1910.1200(i).		
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 immediately.
Ingestion:	Call a poison control center or doctor immediately for treatment advice. DO NOT induce vomiting. 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 separately 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 distillates. May cause aspiration pneumonia hazard.	

SECTION 5: FIRE FIGHTING MEASURES	
Suitable Extinguishing Media:	Recommended for large fires: water spray or foam. Recommended for small fires: dry chemical or carbon dioxide (CO ₂).
Unsuitable Extinguishing Media:	Do not use straight streams
Special Fire Fighting Procedures:	Wear NIOSH/MSHA approved self-contained breathing apparatus and full bunker gear. If water is used to fight fire or cool containers, dike to prevent runoff contamination of municipal sewers or waterways. Dispose of fire control water later. Avoid breathing vapors; keep upwind.
Hazardous Combustion Products:	May produce gases such as hydrogen chloride, other chlorine compounds, hydrogen bromide gas and oxides of carbon and nitrogen.
Unusual Fire and Explosion Hazards:	Closed containers may explode from vapor expansion in high heat.

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:	Keep spilled product from entering sewers or waterways.
Methods for Containment:	Dike spill with an inert absorbent material such as sand, vermiculite or other appropriate material. Do not use combustible materials such as sawdust. Collect and contain contaminated absorbent and dike material for disposal.
Methods for Clean-up:	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). 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 EPA Worker Protection Standard 40 CFR part 170. Do not get in eyes or on skin or clothing. Do not breathe vapors or spray mist. 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. Remove clothing/Personal Protective Equipment (PPE) immediately if pesticide gets inside.	
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The wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible change into clean clothing.

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. Store locked up. Do not store in direct sunlight. See pesticide product label for additional storage information.

Minimum Storage Temperature: 10°F or warm and agitate before use.

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	TWA: 10 ppm (50 mg/m ³)	TWA: 10 ppm skin STEL: 15 ppm	TWA: 10 ppm (50 mg/m ³) STEL: 15 ppm (75 mg/m ³)
1-methylnaphthalene	-	TWA: 0.5 ppm skin	-
2-methylnaphthalene	-	TWA 0.5 ppm skin	-

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.

Skin Protection: Wear chemical resistant gloves, footwear (plus socks), aprons and gauntlets to prevent skin exposure. For overhead exposure wear chemical-resistant headgear. An emergency shower or water supply should be readily accessible to the work area.

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.

Respiratory Protection: Not normally required. If vapors or mists exceed acceptable levels or if irritation occurs, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against pesticides and organic vapors.

NOTE TO END USERS: PERSONAL PROTECTIVE EQUIPMENT (PPE) AND CLOTHING LISTED IN THIS SECTION IS FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD REFER TO THE PESTICIDE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT (PPE) AND CLOTHING.

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

Physical State:	Liquid	Specific Gravity (H₂O=1):	1.135 @ 25°C
Vapor Pressure (mm Hg):	Not determined	Density (lbs/gallon):	9.47 lbs/gallon
Vapor Density (Air=1):	Not determined	Melting Point/Freezing Point:	Not determined
Solubility in Water (wt %):	Not determined	Boiling Point/Range:	Not determined
Viscosity:	24.7 centipoise @25°C	pH (1% dispersion):	3.5 – 4.5
	13.1 centipoise @ 40°C	Flash Point:	>230°F
Appearance and odor:	Light to dark amber liquid with an aromatic odor.		

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Do not mix or allow contact with oxidizing agents. Hazardous chemical reaction may occur.

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

Possibility of Hazardous Reactions: Hazardous polymerization will not occur. Reaction with oxidizers may cause fire.

Conditions to Avoid: Avoid excessive heat. Do not store near heat or flame

Incompatible Materials: Oxidizing agents, bases and acids

Hazardous Decomposition Products: May produce gases such as hydrogen chloride, other chlorine compounds, hydrogen bromide gas and oxides of carbon and nitrogen.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Acute Oral Effects: May be harmful if swallowed. The LD₅₀ in rats is 1,750 mg/kg. The petroleum hydrocarbon component, if aspirated into the respiratory system during ingestion or vomiting may cause mild or severe pulmonary injury possibly progressing to death.

Acute Dermal: The LD₅₀ in rats is > 5,050 mg/kg.

Acute Inhalation Effects: The 4 hour LC₅₀ in rats is > 2.08 mg/L. No mortality occurred at the highest dose tested, and there were no clinical signs of toxicity. Overexposure to petroleum hydrocarbon portion may cause irritation to respiratory tract, headaches, anaesthesia, drowsiness, unconsciousness and other central nervous system effects.

Skin Irritation: May cause slight irritation.

Skin Sensitization: Did not cause sensitization in laboratory animals.

Eye Irritation: Minimally irritating in laboratory animals.

Percent of product with unknown acute toxicity: 0%

SUBCHRONIC / CHRONIC TOXICITY

Subchronic (Target Organ) Effects: Repeat overexposure to phenoxy herbicides may cause effects to liver, kidneys, blood chemistry, and gross motor function. Rare cases of peripheral nerve damage have been reported, but extensive animal studies have failed to substantiate these observations, even at high doses for prolonged periods. Repeated overexposure to bromoxynil may cause effects to liver, kidneys and central nervous system. Repeated overexposure to fluroxypyril may cause effects to bone marrow, kidney, liver and respiratory tract.

Carcinogenicity: This product contains or may contain substances that are considered to be probable or suspected human carcinogens.

Chemical Name	ACGIH	IARC	NTP	OSHA
Naphthalene	A3	Group 2B	Reasonably anticipated.	-
Chlorophenoxy Herbicides (MCPA)	-	Group 2B	-	-

ACGIH: (American Conference of Governmental Industrial Hygienist)
A3-Animal Carcinogen

IARC: (International Agency for Research on Cancer)
Group 2B- Possibly Carcinogenic to Humans

NTP: (National Toxicity Program)
Reasonably anticipated- Reasonably anticipated to be a human carcinogen.

The International Agency for Research on Cancer (IARC) lists chlorophenoxy herbicides as a class 2B carcinogen. However, newer rat and mouse lifetime feeding studies did not show carcinogenic potential for MCPA. The hydrocarbon portion of the formulation may contain naphthalene which is listed by IARC as a class 2B and the U.S National Toxicology Program (NTP) as reasonably anticipated to be a human carcinogen.

Genotoxicity: There have been some positive and some negative studies, but the weight of evidence is MCPA is not mutagenic. There have been some positive and some negative studies but the weight of evidence is that bromoxynil is not mutagenic. Neither in vitro nor in vivo tests on bromoxynil octanoate demonstrated mutagenic effects. Animal tests with fluroxypyril did not demonstrate mutagenic effects.

Reproductive Toxicity: MCPA studies in laboratory animals have shown testicular effects and lower male fertility. Animal tests with bromoxynil have not demonstrated reproductive effects. In animal studies, fluroxypyril has been shown not to interfere with reproduction.

Developmental Toxicity: MCPA studies in laboratory animals have shown decreased fetal body weights and delayed developmental in the offspring at doses toxic to the mother. Based upon the results of rat and rabbit teratogenicity studies, bromoxynil is considered to be a developmental toxicant. Women of childbearing age should be particularly careful when handling this product to avoid ingestion and skin contact. Fluroxypyril did not cause birth defects in animals other effects were seen in the fetus only at doses which caused toxic effects in the mother.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY DATA:

Data on MCPA 2EHE:

96-hour LC50 Bluegill:	3.9 +/- 0.7 mg/L	Bobwhite Quail Dietary LC50:	>5,620 ppm
96-hour LC50 Rainbow Trout:	3.2 mg/L	Mallard Duck 8-day Dietary LC50:	>5,620 ppm
48-hour EC50 Daphnia:	0.28 mg/L		

Data on Bromoxynil Octanoate:

96-hour LC50 Bluegill:	0.53 mg/L	Bobwhite Quail Acute Oral LD50:	148 mg/kg
96-hour LC50 Rainbow Trout:	0.1 mg/L	Mallard Duck Acute Oral LD50:	2,050 mg/kg
48-hour EC50 Daphnia:	0.096 mg/L		

Data on Fluroxypyr 1-Methylheptyl Ester:

Fluroxypyr 1-Methylheptyl Ester is highly toxic to aquatic invertebrates on an acute basis (LC50 or EC50 is between 0.1 and 1 mg/L). Concentrations for fish were not determined because they exceed water solubility. Fluroxypyr 1-Methylheptyl Ester is highly insoluble in water. Fluroxypyr 1-Methylheptyl Ester is practically non-toxic to birds on an acute and dietary basis (LD50 >2,000 mg/kg and LC50 >5,000 ppm).

ENVIRONMENTAL FATE:

MCPA 2EHE is rapidly de-esterified to parent MCPA acid in the environment. In soil, MCPA is microbially degraded with a typical half-life of approximately 10-14 days. Bromoxynil octanoate rapidly degrades to bromoxynil phenol. The typical half-life of bromoxynil phenol ranged from a few days to a few weeks. In laboratory and field studies, Fluroxypyr 1-Methylheptyl Ester rapidly de-esterified to parent acid in the environment. The typical soil half-life for fluroxypyr (acid and ester) ranged from 1 to 4 weeks. Microbial metabolism is the primary degradation mechanism in soil. The typical aquatic half-life ranged from 4 to 14 days.

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

DOT: (Ground)	Quantities of less than 119 gallons are not regulated by U.S. DOT as a hazardous material. Quantities of 119 gallons to 300 gallons: UN3082, Environmentally hazardous substance, liquid, n.o.s., (2-methyl-4-chlorophenoxyacetic acid, Bromoxynil octanoate), 9, PG III, MARINE POLLUTANT, RQ Quantities greater than 300 gallons: UN3082, Environmentally hazardous substance, liquid, n.o.s., (2-methyl-4-chlorophenoxyacetic acid, Bromoxynil octanoate), (Naphthalene), 9, PG III, MARINE POLLUTANT, RQ
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IMDG:
(Sea) Not determined

IATA:
(Air) Not determined

TDG:
(Canada) Not determined

SECTION 15: REGULATORY INFORMATION

TSCA Inventory: This product is exempt from TSCA inventory listing requirements as it is solely for FIFRA regulated use.

SARA Title III Information:

Section 302 - Extremely hazardous substances: None listed

Section 311/312 - Hazard Categories: Immediate (Acute); Delayed (Chronic)

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Section 313 – 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:
Bromoxynil octanoate (CAS No. 1689-99-2) 25.48%
Naphthalene (CAS No. 91-20-3) <5.0%

CERCLA - This product contains the following chemicals which have a reportable quantity (RQ) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
Naphthalene has an RQ of 100 lbs

EPA Registration Information: 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.

CAUTION: Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

State Information:

California Proposition 65: **WARNING:** This product contains a chemicals known to the state of California to cause cancer and/or reproductive harm.

Other state regulations may apply. Check individual state requirements.

SECTION 16: OTHER

Disclaimer: 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 any 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.

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Sections Revised: All