

SAFETY DATA SHEET



WOLVERINE® ADVANCED HERBICIDE

Version 4.0 / USA
102000018284

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Revision Date: 07/20/2023
Print Date: 07/22/2023

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Trade name	WOLVERINE® ADVANCED HERBICIDE
Product code (UVP)	79214294
SDS Number	102000018284
EPA Registration No.	264-1168

Relevant identified uses of the substance or mixture and uses advised against

Use	Herbicide
Restrictions on use	See product label for restrictions.

Information on supplier

Supplier	Bayer CropScience LP 800 North Lindbergh Blvd. St. Louis, MO 63167 USA
Responsible Department	Email: SDSINFO.BCS-NA@bayer.com

Emergency telephone no.

Emergency Telephone Number (24hr/ 7 days)	1-800-334-7577
Product Information Telephone Number	1-866-99BAYER (1-866-992-2937)

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

Serious eye damage: Category 1
Skin irritation: Category 2
Acute toxicity(Oral): Category 4
Acute toxicity(Inhalation): Category 4
Skin sensitisation: Category 1
Aspiration hazard: Category 1
Specific target organ toxicity - single exposure: Category 3
Specific target organ toxicity - repeated exposure: Category 2
Carcinogenicity: Category 2
Reproductive toxicity: Category 2

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Labelling in accordance with regulation HCS 29CFR §1910.1200



Signal word: Danger

Hazard statements

Causes serious eye damage.
Causes skin irritation.
Harmful if swallowed.
Harmful if inhaled.
May cause an allergic skin reaction.
May be fatal if swallowed and enters airways.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.

Precautionary statements

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe gas/ mist/vapours/ spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves/ protective clothing/ eye protection/ face protection.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Immediately call a POISON CENTER/doctor/ physician.
IF ON SKIN: Wash with plenty of water/ soap.
Take off contaminated clothing and wash before reuse.
If skin irritation or rash occurs: Get medical advice/ attention.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER/doctor/physician if you feel unwell.
IF exposed or concerned: Get medical advice/ attention.
Get medical advice/ attention if you feel unwell.
Store locked up.
Store in a well-ventilated place. Keep container tightly closed.
Dispose of contents/container in accordance with local regulation.

Hazards Not Otherwise Classified (HNOC)

No physical hazards not otherwise classified.
No health hazards not otherwise classified.

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Concentration % by weight
Bromoxynil octanoate	1689-99-2	6.13
Bromoxynil heptanoate	56634-95-8	5.93
Fenoxaprop-P-ethyl	71283-80-2	4.56
Pyrasulfotole	365400-11-9	1.50
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	24.9
Reaction mass of N,N-Dimethyldecan-1-amide and N,N-Dimethyloctanamide		22.5
Alcohols, C11-14-iso-, C13-rich, ethoxylated	78330-21-9	17.5
Naphthalene	91-20-3	4.1
Benzenesulfonic acid, C10-13-alkyl derivs., calcium salt		2.0
2-Ethylhexanol	104-76-7	1.8
Toluene	108-88-3	0.1

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Inhalation	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.
Eye contact	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 eye. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

Most important symptoms and effects, both acute and delayed

Symptoms	If large amounts are ingested, the following symptoms may occur:
	Headache, Nausea, Dizziness, Somnolence
	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.
	Aspiration may cause pulmonary oedema and pneumonitis.
	Inhalation may provoke the following symptoms:
	Cough, Shortness of breath, Cyanosis, Fever

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II Symptoms and hazards refer to the solvent.

Indication of any immediate medical attention and special treatment needed

Risks	Contains hydrocarbon solvents. May pose an aspiration pneumonia hazard.
Treatment	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable High volume water jet

Special hazards arising from the substance or mixture Dangerous gases are evolved in the event of a fire.

Advice for firefighters

Special protective equipment for firefighters In the event of fire and/or explosion do not breathe fumes. Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

Further information Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

Specific hazards from the substance or mixture which can increase the fire

Flash point	> 93.3 °C / > 199.94 °F
Auto-ignition temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Explosivity	Not applicable

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SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

Methods and materials for containment and cleaning up

Methods for cleaning up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations. Decontaminate tools and equipment following cleanup.

Additional advice Use personal protective equipment. If the product is accidentally spilled, do not allow to enter soil, waterways or waste water canal. Do not allow product to contact non-target plants.

This substance contains 10% or more of an oil as defined in 49 CFR 130.5 when it is shipped in a package of 3,500 gallons or more.

Reference to other sections Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use only in area provided with appropriate exhaust ventilation. Handle and open container in a manner as to prevent spillage.

Advice on protection against fire and explosion Keep away from heat and sources of ignition.

Hygiene measures Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.
Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from direct sunlight.

Advice on common storage Keep away from food, drink and animal feedingstuffs.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Bromoxynil octanoate	1689-99-2	0.21 mg/m ³ (SK-SEN)		OES BCS*
Fenoxaprop-P-ethyl	71283-80-2	2.6 mg/m ³ (TWA)		OES BCS*
Solvent Naphtha (petroleum), heavy aromatic (Non-aerosol.)	64742-94-5	200 mg/m ³ (TWA)	01 2021	ACGIH
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	1,600 mg/m ³ /400 ppm (TWA PEL)	09 2006	US CA OEL
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	100 mg/m ³ (REL)	2010	NIOSH
Solvent Naphtha (petroleum), heavy aromatic (Non-aerosol.)	64742-94-5	200 mg/m ³ (TWA)	03 2014	ACGIH
Naphthalene	91-20-3	10 ppm (TWA)	02 2012	ACGIH
Naphthalene	91-20-3	50 mg/m ³ /10 ppm (REL)	2010	NIOSH
Naphthalene	91-20-3	75 mg/m ³ /15 ppm (STEL)	2010	NIOSH
Naphthalene	91-20-3	50 mg/m ³ /10 ppm (PEL)	02 2006	OSHA Z1
Naphthalene	91-20-3	75 mg/m ³ /15 ppm (STEL)	06 2008	TN OEL
Naphthalene	91-20-3	50 mg/m ³ /10 ppm (TWA)	06 2008	TN OEL
Naphthalene	91-20-3	0.5 mg/m ³ /0.1 ppm (TWA PEL)	10 2014	US CA OEL
Naphthalene	91-20-3	10 ppm (TLV)		OES BCS*
2-Ethylhexanol	104-76-7	5 ppm (TWA)	01 2022	ACGIH
Toluene	108-88-3	20 ppm (TWA)	02 2012	ACGIH
Toluene	108-88-3	375 mg/m ³ /100 ppm (REL)	2010	NIOSH
Toluene	108-88-3	560 mg/m ³ /150 ppm (STEL)	2010	NIOSH
Toluene	108-88-3	375 mg/m ³ /100 ppm (TWA)	1989	OSHA Z1A

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Toluene	108-88-3	560 mg/m ³ /150 ppm (STEL)	1989	OSHA Z1A
Toluene	108-88-3	500 ppm (MAX. CONC)	02 2006	OSHA Z2
Toluene	108-88-3	200 ppm (TWA)	02 2006	OSHA Z2
Toluene	108-88-3	300 ppm (CEILING)	02 2006	OSHA Z2
Toluene	108-88-3	375 mg/m ³ /100 ppm (TWA)	06 2008	TN OEL
Toluene	108-88-3	580 mg/m ³ /150 ppm (STEL)	06 2008	TN OEL
Toluene	108-88-3	560 mg/m ³ /150 ppm (STEL)	08 2010	US CA OEL
Toluene	108-88-3	37 mg/m ³ /10 ppm (TWA PEL)	02 2012	US CA OEL
Toluene	108-88-3	500 ppm (CEILING)	08 2010	US CA OEL
Toluene	108-88-3	20 ppm (TLV)		OES BCS*

*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

Biological occupational exposure limits

Components	CAS-No.	Parameters	Biological specimen	Sampling time	Conc.	Basis
Naphthalene	91-20-3	1-Naphthol, with hydrolysis + 2-Naphthol, with hydrolysis		Sampling time: End of shift.		ACGIH BEI
Toluene	108-88-3	o-Cresol, with hydrolysis	Creatinine in urine	Sampling time: End of shift.	0.3 mg/g	ACGIH BEI
Toluene	108-88-3	toluene	Blood	Sampling time: Prior to last shift of work week.	0.02 mg/l	ACGIH BEI
Toluene	108-88-3	toluene	Urine	Sampling time: End of shift.	0.03 mg/l	ACGIH BEI

Exposure controls

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection

When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry

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recommendations.

Hand protection	Chemical-resistant gloves (barrier laminate, butyl rubber, nitrile rubber or Viton)
Eye protection	Use tightly sealed goggles and face protection.
Skin and body protection	Wear long-sleeved shirt and long pants and shoes plus socks.
General protective measures	Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Form	Liquid
Colour	beige to brown
Odour	aromatic
Odour Threshold	No data available
pH	6.3 - 6.5 (10 %) (23 °C) (deionized water)
Melting point/range	No data available
Boiling Point	No data available
Flash point	> 93.3 °C / > 199.94 °F
Flammability	No data available
Auto-ignition temperature	No data available
Thermal decomposition	No data available
Minimum ignition energy	Not applicable
Self-accelerating decomposition temperature (SADT)	No data available
Upper explosion limit	No data available
Lower explosion limit	No data available
Vapour pressure	No data available
Evaporation rate	No data available
Relative vapour density	No data available
Relative density	No data available
Density	1.04 g/cm ³ (20 °C)
Water solubility	emulsifiable

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Partition coefficient: n-octanol/water	Bromoxynil octanoate: log Pow: 5.4 Bromoxynil heptanoate: log Pow: 5.9 Fenoxaprop-P-ethyl: log Pow: 4.58 (30 °C) Pyrasulfotole: log Pow: -1.362
Viscosity, dynamic	17.6 cps
Viscosity, kinematic	No data available
Oxidizing properties	No data available
Explosivity	Not applicable
Other information	Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions.
Conditions to avoid	Extremes of temperature and direct sunlight.
Incompatible materials	No incompatible materials known.
Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes	Ingestion, Eye contact, Skin contact, Inhalation
Immediate Effects	
Eye	Causes serious eye damage.
Skin	Causes skin irritation. May be harmful in contact with skin. May cause sensitisation by skin contact.
Ingestion	Harmful if swallowed.
Inhalation	May be harmful if inhaled.
Information on toxicological effects	
Acute oral toxicity	LD50 (female Rat) 1,105 mg/kg

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Acute inhalation toxicity	LC50 (Rat) > 2.02 mg/l Exposure time: 4 h Determined in the form of liquid aerosol. highest concentration tested
Acute dermal toxicity	LD50 (Rat) > 2,000 mg/kg
Skin corrosion/irritation	Moderate skin irritation. (Rabbit)
Serious eye damage/eye irritation	Risk of serious damage to eyes. (Rabbit)
Respiratory or skin sensitisation	Skin: Sensitising (Guinea pig)

Assessment STOT Specific target organ toxicity – single exposure

Bromoxynil octanoate: Based on available data, the classification criteria are not met.
Fenoxaprop-P-ethyl: Based on available data, the classification criteria are not met.
Pyrasulfotole: Based on available data, the classification criteria are not met.

Assessment STOT Specific target organ toxicity – repeated exposure

Bromoxynil octanoate caused specific target organ toxicity in experimental animal studies in the following organ(s): Liver. The observed effects do not appear to be relevant for humans.
Bromoxynil heptanoate caused specific target organ toxicity in experimental animal studies in the following organ(s): Liver. The observed effects do not appear to be relevant for humans.
Fenoxaprop-P-ethyl did not cause specific target organ toxicity in rats. Fenoxaprop-P-ethyl caused specific target organ toxicity in experimental animal studies in mice in the following organ(s): Kidney.
Pyrasulfotole : May cause damage to organs through prolonged or repeated exposure.

Assessment mutagenicity

Bromoxynil octanoate was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.
Bromoxynil heptanoate was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.
Fenoxaprop-P-ethyl was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.
Pyrasulfotole was not genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Bromoxynil octanoate caused at high dose levels an increased incidence of tumours in the following organ(s): Liver. The mechanism of tumour formation is not considered to be relevant to man.
Bromoxynil heptanoate caused at high dose levels an increased incidence of tumours in mice in the following organ(s): Liver. The mechanism of tumour formation is not considered to be relevant to man.
Fenoxaprop-P-ethyl demonstrated no carcinogenic potential in a lifetime feeding study in rats.
Fenoxaprop-P-ethyl caused an increased incidence of liver tumours in mice at high doses. Fenoxaprop-P-ethyl causes tumours through peroxisome proliferation. The mechanism that triggers tumours in rodents and the type of tumours observed are not relevant to humans.
Pyrasulfotole caused at high dose levels an increased incidence of tumours in the following organ(s): Cornea, urinary bladder. The mechanism that triggers tumours in rodents and the type of tumours observed are not relevant to humans.

ACGIH

Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	Group A3
Naphthalene	91-20-3	Group A3

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2-Ethylhexanol 104-76-7 Group A3
Toluene 108-88-3

NTP

Naphthalene 91-20-3

IARC

Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	Overall evaluation: 3
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	Overall evaluation: 3
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	Overall evaluation: 3
Naphthalene	91-20-3	Overall evaluation: 2B
Toluene	108-88-3	Overall evaluation: 3

Assessment toxicity to reproduction

Bromoxynil octanoate did not cause reproductive toxicity in a two-generation study in rats.
Bromoxynil heptanoate did not cause reproductive toxicity in a two-generation study in rats.
Fenoxaprop-P-ethyl did not cause reproductive toxicity in a two-generation study in rats.
Pyrasulfotole did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

Bromoxynil octanoate caused a delayed foetal growth, an increased incidence of non-specific malformations. Bromoxynil octanoate caused developmental toxicity only at dose levels toxic to the dams.
Bromoxynil heptanoate caused developmental toxicity only at dose levels toxic to the dams.
Bromoxynil heptanoate caused a delayed foetal growth, an increased incidence of non-specific malformations.
Fenoxaprop-P-ethyl did not cause developmental toxicity in rats and rabbits.
Pyrasulfotole did not cause developmental toxicity in rats and rabbits.

Aspiration hazard

May be fatal if swallowed and enters airways.

Further information

Only acute toxicity studies have been performed on the formulated product.
The non-acute information pertains to the active ingredient(s).

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish

LC50 (Oncorhynchus mykiss (rainbow trout)) 0.39 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient fenoxaprop-P-ethyl.

LC50 (Lepomis macrochirus (Bluegill sunfish)) 0.19 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient fenoxaprop-P-ethyl.

LC50 (Lepomis macrochirus (Bluegill sunfish)) 0.041 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient bromoxynil octanoate.

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	<p>LC50 (Lepomis macrochirus (Bluegill sunfish)) 0.029 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient bromoxynil heptanoate.</p>
Chronic toxicity to fish	<p>Oncorhynchus mykiss (rainbow trout) NOEC: 0.036 mg/l Exposure time: 91 d The value mentioned relates to the active ingredient fenoxaprop-P-ethyl.</p>
Toxicity to aquatic invertebrates	<p>EC50 (Daphnia magna (Water flea)) > 1.058 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient fenoxaprop-P-ethyl. No acute toxicity was observed at its limit of water solubility.</p>
	<p>EC50 (Daphnia magna (Water flea)) 0.046 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient bromoxynil octanoate.</p>
	<p>EC50 (Daphnia magna (Water flea)) 0.031 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient bromoxynil heptanoate.</p>
Chronic toxicity to aquatic invertebrates	<p>NOEC (Daphnia (water flea)): 0.22 mg/l Exposure time: 21 d The value mentioned relates to the active ingredient fenoxaprop-P-ethyl.</p>
Toxicity to aquatic plants	<p>EC50 (Raphidocelis subcapitata (freshwater green alga)) 0.54 mg/l Biomass; Exposure time: 72 h The value mentioned relates to the active ingredient fenoxaprop-P-ethyl.</p> <p>EC50 (Navicula pelliculosa (Freshwater diatom)) 0.043 mg/l Exposure time: 120 h The value mentioned relates to the active ingredient bromoxynil octanoate.</p> <p>EC50 (Raphidocelis subcapitata (freshwater green alga)) 0.083 mg/l Exposure time: 120 h The value mentioned relates to the active ingredient bromoxynil heptanoate.</p> <p>EC50 (Lemna gibba (gibbous duckweed)) 0.073 mg/l The value mentioned relates to the active ingredient bromoxynil octanoate.</p> <p>EC50 (Lemna gibba (gibbous duckweed)) 0.21 mg/l Exposure time: 336 h The value mentioned relates to the active ingredient bromoxynil</p>

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	heptanoate.
Toxicity to bacteria	EC50 (activated sludge) > 1,000 mg/l Exposure time: 3 h The value mentioned relates to the active ingredient fenoxaprop-P-ethyl.
Biodegradability	Bromoxynil octanoate: Not rapidly biodegradable Bromoxynil heptanoate: Not rapidly biodegradable Fenoxaprop-P-ethyl: Not rapidly biodegradable Pyrasulfotole: Not rapidly biodegradable
Koc	Bromoxynil octanoate: Koc: 639 Bromoxynil heptanoate: Koc: ca. 600 Fenoxaprop-P-ethyl: Koc: 11354 Pyrasulfotole: Koc: 20 - 213; log Koc: 2.34
Bioaccumulation	Bromoxynil octanoate: Bioconcentration factor (BCF) 230 Does not bioaccumulate. Bromoxynil heptanoate: No data available, Does not bioaccumulate. Fenoxaprop-P-ethyl: Bioconcentration factor (BCF) 338 Does not bioaccumulate. Pyrasulfotole: Does not bioaccumulate.
Mobility in soil	Bromoxynil octanoate: Slightly mobile in soils Bromoxynil heptanoate: Slightly mobile in soils Fenoxaprop-P-ethyl: Immobile in soil Pyrasulfotole: Moderately mobile in soils
Results of PBT and vPvB assessment	
PBT and vPvB assessment	Bromoxynil octanoate: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB). Bromoxynil heptanoate: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB). Fenoxaprop-P-ethyl: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB). Pyrasulfotole: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).
Additional ecological information	No further ecological information is available.
Environmental precautions	Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water.

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Apply this product as specified on the label.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product	Dispose in accordance with all local, state/provincial and federal regulations.
Contaminated packaging	Consult state and local regulations regarding the proper disposal of container. Follow advice on product label and/or leaflet.
RCRA Information	Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

SECTION 14: TRANSPORT INFORMATION

49CFR

UN number	3082
Class	9
Packaging group	III
Marine pollutant	Marine pollutant
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (FENOXAPROP-P-ETHYL, BROMOXYNIL, NAPHTHALENE)
RQ	Reportable Quantity is reached with 2,439 lb of product.

IMDG

UN number	3082
Class	9
Packaging group	III
Marine pollutant	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FENOXAPROP-P-ETHYL, BROMOXYNIL SOLUTION)

IATA

UN number	3082
Class	9
Packaging group	III
Environm. Hazardous Mark	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FENOXAPROP-P-ETHYL, BROMOXYNIL SOLUTION)

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation

SAFETY DATA SHEET



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requirements.

Further Information

This substance contains 10% or more of an oil as defined in 49 CFR 130.5 when it is shipped in a package of 3,500 gallons or more.

SECTION 15: REGULATORY INFORMATION

EPA Registration No. 264-1168

US Federal Regulations

TSCA list

Hydrocarbons, C10, aromatics, <1% naphthalene	64742-94-5
Alcohols, C11-14-iso-, C13-rich, ethoxylated	78330-21-9
Bromoxynil octanoate	1689-99-2
Mefenpyr-diethyl	135590-91-9
Castor oil, ethoxylated	61791-12-6
2-Ethylhexanol	104-76-7
Naphthalene	91-20-3

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

No export notification needs to be made.

SARA Title III - Section 302 - Notification and Information

Not applicable.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

Yes

Yes

US States Regulatory Reporting

CA Prop65

WARNING: This product contains a chemical known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Naphthalene	91-20-3
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WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Bromoxynil octanoate	1689-99-2	Developmental toxin.
Toluene	108-88-3	Developmental toxin.
Bromoxynil	1689-84-5	Developmental toxin.

US State Right-To-Know Ingredients

Hydrocarbons, C10, aromatics, <1% naphthalene	64742-94-5	CT, IL, NJ, RI
Bromoxynil octanoate	1689-99-2	CT, NJ
2-Ethylhexanol	104-76-7	CT
Naphthalene	91-20-3	CA, CT, IL, MN, NJ, RI

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Environmental

CERCLA

Yes

Hydrocarbons, C10, aromatics, <1%
naphthalene 64742-94-5

Yes

Naphthalene 91-20-3
Listed.

Clean Water Section 307(a)(1)

Yes

Naphthalene 91-20-3

Yes

Toluene 108-88-3

Safe Drinking Water Act Maximum Contaminant Levels

Yes

Naphthalene 91-20-3

Yes

Toluene 108-88-3

EPA/FIFRA Information:

This chemical is a pesticide product regulated 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 required on the pesticide label:

Signal word: Danger!

Hazard statements: Corrosive - causes irreversible eye damage.
Harmful if swallowed or absorbed through skin.
Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms

49CFR	Code of Federal Regulations, Title 49
ACGIH	US. ACGIH Threshold Limit Values
ATE	Acute toxicity estimate
CAS-Nr.	Chemical Abstracts Service number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
N.O.S.	Not otherwise specified

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NTP	US. National Toxicology Program (NTP) Report on Carcinogens
OECD	Organization for Economic Co-operation and Development
TDG	Transportation of Dangerous Goods
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

NFPA 704 (National Fire Protection Association):

Health - 3 Flammability - 1 Instability - 0 Others - none

HMIS (Hazardous Materials Identification System, based on the Fourth Edition Ratings Guide)

Health - 3* Flammability - 1 Physical Hazard - 0 PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard,
* = chronic health hazard

Reason for Revision: The following sections have been revised: Section 2: Hazards Identification. Section 3: Composition / Information on Ingredients. Section 4: First Aid Measures. Section 6. Accidental Release Measures. Section 11: Toxicological Information. Section 14: Transport Information. Section 16: Other Information. Reviewed and updated for general editorial purposes.

Revision Date: 07/20/2023

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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