

# SAFETY DATA SHEET



## WOLVERINE® ADVANCED HERBICIDE

Version 2.0 / USA  
102000018284

1/13  
Revision Date: 01/30/2018  
Print Date: 01/31/2018

### 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  
2 T.W. Alexander Drive  
Research Triangle PK, NC 27709  
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, Aspiration hazard, Skin sensitisation: Category 1  
Skin irritation, Reproductive toxicity, Carcinogenicity: Category 2  
Acute toxicity(Oral, Inhalation): Category 4

#### Labelling in accordance with regulation HCS 29CFR §1910.1200



**Signal word:** Danger

#### Hazard statements

Causes serious eye damage.  
May be fatal if swallowed and enters airways.  
May cause an allergic skin reaction.

# SAFETY DATA SHEET



## WOLVERINE® ADVANCED HERBICIDE

Version 2.0 / USA  
102000018284

2/13  
Revision Date: 01/30/2018  
Print Date: 01/31/2018

Causes skin irritation.  
Suspected of damaging fertility or the unborn child.  
Suspected of causing cancer.  
Harmful if inhaled.

### Precautionary statements

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

## 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
Naphthalene	91-20-3	2.0
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	28.8
N,N-Dimethyl decanamide	14433-76-2	22.2
Fatty alcohol ethoxylate	78330-21-9	17.5
Dodecyl benzene sulphonate, calcium salt	26264-06-2	1.95
2-Ethylhexan-1-ol	104-76-7	1.3

# SAFETY DATA SHEET



## WOLVERINE® ADVANCED HERBICIDE

Version 2.0 / USA  
102000018284

3/13  
Revision Date: 01/30/2018  
Print Date: 01/31/2018

---

### SECTION 4: FIRST AID MEASURES

#### Description of first aid measures

<b>General advice</b>	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
<b>Inhalation</b>	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.
<b>Skin contact</b>	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.
<b>Eye contact</b>	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.
<b>Ingestion</b>	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

#### Indication of any immediate medical attention and special treatment needed

<b>Risks</b>	Contains hydrocarbon solvents. May pose an aspiration pneumonia hazard.
<b>Treatment</b>	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

---

### SECTION 5: FIREFIGHTING MEASURES

#### Extinguishing media

<b>Suitable</b>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
<b>Unsuitable</b>	None known.
<b>Special hazards arising from the substance or mixture</b>	Dangerous gases are evolved in the event of a fire.
<b>Advice for firefighters</b>	
<b>Special protective equipment for firefighters</b>	Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

# SAFETY DATA SHEET



## WOLVERINE® ADVANCED HERBICIDE

Version 2.0 / USA  
102000018284

4/13  
Revision Date: 01/30/2018  
Print Date: 01/31/2018

---

<b>Further information</b>	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.
<b>Flash point</b>	104.4 °C
<b>Auto-ignition temperature</b>	No data available
<b>Lower explosion limit</b>	No data available
<b>Upper explosion limit</b>	No data available
<b>Explosivity</b>	Not applicable

---

## 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.

**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** Handle and open container in a manner as to prevent spillage. Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.

**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**

# SAFETY DATA SHEET



## WOLVERINE® ADVANCED HERBICIDE

Version 2.0 / USA  
102000018284

5/13  
Revision Date: 01/30/2018  
Print Date: 01/31/2018

### Requirements for storage areas and containers

Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. 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. Protect from freezing.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Bromoxynil octanoate	1689-99-2	0.21 mg/m <sup>3</sup> (SK-SEN)		OES BCS*
Fenoxaprop-P-ethyl	71283-80-2	2.6 mg/m <sup>3</sup> (TWA)		OES BCS*
Pyrasulfotole	365400-11-9	0.3 mg/m <sup>3</sup> (TWA)		OES BCS*
Naphthalene	91-20-3	10 ppm (TWA)	02 2012	ACGIH
Naphthalene	91-20-3	50 mg/m <sup>3</sup> /10 ppm (REL)	2010	NIOSH
Naphthalene	91-20-3	75 mg/m <sup>3</sup> /15 ppm (STEL)	2010	NIOSH
Naphthalene	91-20-3	50 mg/m <sup>3</sup> /10 ppm (PEL)	02 2006	OSHA Z1
Naphthalene	91-20-3	75 mg/m <sup>3</sup> /15 ppm (STEL)	06 2008	TN OEL
Naphthalene	91-20-3	50 mg/m <sup>3</sup> /10 ppm (TWA)	06 2008	TN OEL
Naphthalene	91-20-3	0.5 mg/m <sup>3</sup> /0.1 ppm (TWA PEL)	10 2014	US CA OEL
Naphthalene	91-20-3	10 ppm (TLV)		OES BCS*
Solvent Naphtha (petroleum), heavy aromatic (Non-aerosol.)	64742-94-5	200 mg/m <sup>3</sup> (TWA)	03 2014	ACGIH
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	100 mg/m <sup>3</sup> (REL)	2010	NIOSH
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	400 mg/m <sup>3</sup> /100 ppm (REL)	2010	NIOSH
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	400 mg/m <sup>3</sup> /100 ppm (PEL)	02 2006	OSHA Z1
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	400 mg/m <sup>3</sup> /100 ppm (TWA)	06 2008	TN OEL

# SAFETY DATA SHEET



## WOLVERINE® ADVANCED HERBICIDE

Version 2.0 / USA  
102000018284

6/13  
Revision Date: 01/30/2018  
Print Date: 01/31/2018

Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	1,600 mg/m <sup>3</sup> /400 ppm (TWA PEL)	08 2010	US CA OEL
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	1,350 mg/m <sup>3</sup> /300 ppm (TWA PEL)	09 2013	US CA OEL
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	1,800 mg/m <sup>3</sup> /400 ppm (STEL)	09 2013	US CA OEL

\*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.		ACGI H 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 recommendations.

#### Hand protection

Chemical resistant nitrile rubber gloves

#### Eye protection

Chemical resistant goggles must be worn.

#### 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

Appearance	beige to brown
Physical State	Liquid
Odor	aromatic
Odour Threshold	No data available
pH	6.3 - 6.5 at 10 % (23 °C) (deionized water)

# SAFETY DATA SHEET



## WOLVERINE® ADVANCED HERBICIDE

Version 2.0 / USA  
102000018284

7/13  
Revision Date: 01/30/2018  
Print Date: 01/31/2018

---

<b>Vapor Pressure</b>	No data available
<b>Vapor Density (Air = 1)</b>	No data available
<b>Density</b>	1.04 g/cm <sup>3</sup> at 20 °C
<b>Evaporation rate</b>	No data available
<b>Boiling Point</b>	No data available
<b>Melting / Freezing Point</b>	No data available
<b>Water solubility</b>	emulsifiable
<b>Minimum Ignition Energy</b>	Not applicable
<b>Decomposition temperature</b>	Not applicable
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Viscosity</b>	12 - 22 mPa.s
<b>Flash point</b>	104.4 °C
<b>Auto-ignition temperature</b>	No data available
<b>Lower explosion limit</b>	No data available
<b>Upper explosion limit</b>	No data available
<b>Explosivity</b>	Not applicable

---

### SECTION 10: STABILITY AND REACTIVITY

#### Reactivity

<b>Thermal decomposition</b>	Not applicable
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Extremes of temperature and direct sunlight.
<b>Incompatible materials</b>	No data available
<b>Hazardous decomposition products</b>	No decomposition products expected under normal conditions of use.

---

### SECTION 11: TOXICOLOGICAL INFORMATION

<b>Exposure routes</b>	Ingestion, Eye contact, Skin Absorption, Inhalation
<b>Immediate Effects</b>	

# SAFETY DATA SHEET



## WOLVERINE® ADVANCED HERBICIDE

Version 2.0 / USA  
102000018284

8/13  
Revision Date: 01/30/2018  
Print Date: 01/31/2018

<b>Eye</b>	Corrosive - causes irreversible eye damage.
<b>Skin</b>	Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Harmful if absorbed through skin.
<b>Ingestion</b>	Harmful if swallowed.

### Information on toxicological effects

<b>Acute oral toxicity</b>	LD50 (female Rat) 1,105 mg/kg
<b>Acute inhalation toxicity</b>	LC50 (Rat) > 2.02 mg/l Exposure time: 4 h Determined in the form of liquid aerosol. highest concentration tested
<b>Acute dermal toxicity</b>	LD50 (Rat) > 2,000 mg/kg
<b>Skin irritation</b>	Moderate skin irritation. (Rabbit)
<b>Eye irritation</b>	Severe eye irritation. (Rabbit)
<b>Sensitisation</b>	Sensitising (Guinea pig)

### Assessment STOT Specific target organ toxicity – repeated exposure

Bromoxynil 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 did not cause specific target organ toxicity in experimental animal studies.

### Assessment mutagenicity

Bromoxynil 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 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

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

### NTP

Naphthalene	91-20-3
-------------	---------

### IARC



# SAFETY DATA SHEET



## WOLVERINE® ADVANCED HERBICIDE

Version 2.0 / USA  
102000018284

9/13  
Revision Date: 01/30/2018  
Print Date: 01/31/2018

Naphthalene

91-20-3

Overall evaluation: 2B

### OSHA

None.

### Assessment toxicity to reproduction

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

### 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)) 0.029 mg/l  
Exposure time: 96 h  
The value mentioned relates to the active ingredient bromoxynil octanoate.

LC50 (Lepomis macrochirus (Bluegill sunfish)) 0.029 mg/l  
Exposure time: 96 h  
The value mentioned relates to the active ingredient bromoxynil heptanoate.

### Toxicity to aquatic invertebrates

EC50 (Daphnia magna (Water flea)) > 1,058 mg/l  
Exposure time: 48 h  
The value mentioned relates to the active ingredient fenoxaprop-P-ethyl.

EC50 (Daphnia magna (Water flea)) 0.046 mg/l  
Exposure time: 48 h  
The value mentioned relates to the active ingredient bromoxynil octanoate.

EC50 (Daphnia magna (Water flea)) 0.031 mg/l  
Exposure time: 48 h  
The value mentioned relates to the active ingredient bromoxynil heptanoate.

# SAFETY DATA SHEET



## WOLVERINE® ADVANCED HERBICIDE

Version 2.0 / USA  
102000018284

10/13  
Revision Date: 01/30/2018  
Print Date: 01/31/2018

<b>Toxicity to aquatic plants</b>	<p>EC50 (Raphidocelis subcapitata (freshwater green alga)) 0.54 mg/l 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>
<b>Biodegradability</b>	<p>Bromoxynil: Not rapidly biodegradable</p> <p>Fenoxaprop-P-ethyl: Not rapidly biodegradable</p> <p>Pyrasulfotole: Not rapidly biodegradable</p>
<b>Koc</b>	<p>Bromoxynil: Koc: 108 - 239 Fenoxaprop-P-ethyl: Koc: 11354 Pyrasulfotole: Koc: 20 - 213</p>
<b>Bioaccumulation</b>	<p>Bromoxynil: Bioconcentration factor (BCF) 230 Does not bioaccumulate.</p> <p>Fenoxaprop-P-ethyl: Bioconcentration factor (BCF) 338 Does not bioaccumulate.</p> <p>Pyrasulfotole: Does not bioaccumulate.</p>
<b>Mobility in soil</b>	<p>Bromoxynil: Moderately mobile in soils Fenoxaprop-P-ethyl: Immobile in soil Pyrasulfotole: Moderately mobile in soils</p>
<b>Environmental precautions</b>	<p>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. Apply this product as specified on the label.</p>

---

## SECTION 13: DISPOSAL CONSIDERATIONS

### Waste treatment methods

**Product** Do not contaminate water, food, or feed by disposal.  
Dispose in accordance with all local, state/provincial and federal regulations.  
It is best to use all of the product in accordance with label directions. If it is necessary to dispose of unused product, please follow container label instructions and applicable local guidelines.

# SAFETY DATA SHEET



## WOLVERINE® ADVANCED HERBICIDE

Version 2.0 / USA  
102000018284

11/13  
Revision Date: 01/30/2018  
Print Date: 01/31/2018

<b>Contaminated packaging</b>	Do not re-use empty packagings. Triple rinse containers. Puncture container to avoid re-use. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State/Provincial and local authorities, by burning. If burned, stay out of smoke. Follow advice on product label and/or leaflet.
<b>RCRA Information</b>	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	<b>3082</b>
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 5,000 lb of product.

#### IMDG

UN number	<b>3082</b>
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	<b>3082</b>
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 requirements.

---

# SAFETY DATA SHEET



## WOLVERINE® ADVANCED HERBICIDE

Version 2.0 / USA  
102000018284

12/13  
Revision Date: 01/30/2018  
Print Date: 01/31/2018

### SECTION 15: REGULATORY INFORMATION

**EPA Registration No.** 264-1168

#### US Federal Regulations

##### TSCA list

Bromoxynil octanoate	1689-99-2
Naphthalene	91-20-3
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5
N,N-Dimethyl decanamide	14433-76-2
Fatty alcohol ethoxylate	78330-21-9
Dodecyl benzene sulphonate, calcium salt	26264-06-2
2-Ethylhexan-1-ol	104-76-7

**US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)**  
None.

#### SARA Title III - Section 302 - Notification and Information

None.

#### SARA Title III - Section 313 - Toxic Chemical Release Reporting

Bromoxynil octanoate	1689-99-2	1.0%
Naphthalene	91-20-3	0.1%

#### US States Regulatory Reporting

##### CA Prop65

This product contains a chemical known to the State of California to cause cancer.

Naphthalene	91-20-3
-------------	---------

This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Bromoxynil octanoate	1689-99-2	Developmental toxin.
----------------------	-----------	----------------------

#### US State Right-To-Know Ingredients

Bromoxynil octanoate	1689-99-2	NJ
Naphthalene	91-20-3	CA, CT, IL, MN, NJ, RI
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	CA, CT, MN, NJ, RI
Dodecyl benzene sulphonate, calcium salt	26264-06-2	CA, CT, IL, NJ
2-Ethylhexan-1-ol	104-76-7	CT

#### Canadian Regulations

##### Canadian Domestic Substance List

None.

#### Environmental

##### CERCLA

Naphthalene	91-20-3	
Dodecyl benzene sulphonate, calcium salt	26264-06-2	1,000 lbs

##### Clean Water Section 307 Priority Pollutants

Naphthalene	91-20-3
-------------	---------

##### Safe Drinking Water Act Maximum Contaminant Levels

Naphthalene	91-20-3
-------------	---------

# SAFETY DATA SHEET



## WOLVERINE® ADVANCED HERBICIDE

Version 2.0 / USA  
102000018284

13/13  
Revision Date: 01/30/2018  
Print Date: 01/31/2018

### EPA/FIFRA 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 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.  
Do not get in eyes, on skin, or on clothing.

## 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
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 Third Edition Ratings Guide)

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

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

**Reason for Revision:** The following sections have been revised: Section 2: Hazards Identification.

**Revision Date:** 01/30/2018

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.