

**BIOADVANCED SCIENCE-BASED
SOLUTIONS CRABGRASS KILLER FOR
LAWNS READY-TO-SPRAY**

Version 1.0 / USA
102000014567

1/11
Revision Date: 05/01/2017

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

Product identifier

Trade name BIOADVANCED SCIENCE-BASED SOLUTIONS CRABGRASS
KILLER FOR LAWNS READY-TO-SPRAY

Product code (UVP) 79051352

SDS Number 102000014567

EPA Registration No. 92564-32

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

Use Herbicide

Restrictions on use See product label for restrictions.

Information on manufacturer

SBM Life Science Corp.
1001 Winstead, Ste 500
Cary, NC 27513
United States

Emergency telephone no.

**Emergency Telephone
Number (24hr/ 7 days)** 1-800-587-2654 (24 hours/day)

**Product Information
Telephone Number** 1-800-331-2867

SDS Information or Request SDS@corp.sbm-company.com

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

Eye irritation : Category 2B

Signal word: Warning

Hazard statements

Precautionary statements

Wash face, hands and any exposed skin thoroughly after handling.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present
and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/ attention.

Other hazards

No particular hazards known.

**BIOADVANCED SCIENCE-BASED
SOLUTIONS CRABGRASS KILLER FOR
LAWNS READY-TO-SPRAY**

Version 1.0 / USA
102000014567

2/11

Revision Date: 05/01/2017

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Hazardous Component Name | CAS-No. | Concentration % by weight |
|---------------------------------|----------------|----------------------------------|
| Fenoxaprop-P-ethyl | 71283-80-2 | 0.41 |
| Naphthalene | 91-20-3 | 0.35 |

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 | To date no symptoms are known. |
| 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. There is no specific antidote. |

**BIOADVANCED SCIENCE-BASED
SOLUTIONS CRABGRASS KILLER FOR
LAWNS READY-TO-SPRAY**

Version 1.0 / USA
102000014567

3/11

Revision Date: 05/01/2017

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable Foam, Carbon dioxide (CO₂), Dry chemical, Water spray

Unsuitable None known.

Advice for firefighters

Special protective equipment for fire-fighters 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.

Flash point no data available

Autoignition temperature no data available

Lower explosion limit no data available

Upper explosion limit no data available

Explosivity 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.

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

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

**BIOADVANCED SCIENCE-BASED
SOLUTIONS CRABGRASS KILLER FOR
LAWNS READY-TO-SPRAY**

Version 1.0 / USA
102000014567

4/11

Revision Date: 05/01/2017

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

Requirements for storage areas and containers Store in original container and out of the reach of children, preferably in a locked storage area. Protect from freezing.

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

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

| Components | CAS-No. | Control parameters | Update | Basis |
|-------------|---------|-------------------------------------|---------|-----------|
| Naphthalene | 91-20-3 | 15 ppm (STEL) | 02 2012 | ACGIH |
| Naphthalene | 91-20-3 | 10 ppm (TWA) | 02 2012 | ACGIH |
| Naphthalene | 91-20-3 | 10 ppm (TWA) | 02 2013 | ACGIH NIC |
| 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) | 1989 | OSHA Z1A |
| Naphthalene | 91-20-3 | 50 mg/m ³ /10 ppm (TWA) | 1989 | OSHA Z1A |
| Naphthalene | 91-20-3 | 50 mg/m ³ /10 ppm (TWA) | 06 2008 | TN OEL |
| Naphthalene | 91-20-3 | 75 mg/m ³ /15 ppm (STEL) | 06 2008 | TN OEL |
| Naphthalene | 91-20-3 | 38ppb (ST ESL) | 02 2013 | TX ESL |

**BIOADVANCED SCIENCE-BASED
SOLUTIONS CRABGRASS KILLER FOR
LAWNS READY-TO-SPRAY**

Version 1.0 / USA
102000014567

5/11

Revision Date: 05/01/2017

| | | | | |
|---|---------|------------------------------|---------|-----------|
| Naphthalene | 91-20-3 | 50ug/m3 (AN ESL) | 07 2011 | TX ESL |
| Naphthalene | 91-20-3 | 10ppb (AN ESL) | 07 2011 | TX ESL |
| Naphthalene | 91-20-3 | 200ug/m3 (ST ESL) | 02 2013 | TX ESL |
| Naphthalene | 91-20-3 | 75 mg/m3/15 ppm (STEL) | 08 2010 | US CA OEL |
| Naphthalene | 91-20-3 | 50 mg/m3/10 ppm (TWA PEL) | 08 2010 | US CA OEL |
| Naphthalene | 91-20-3 | 10 ppm (TWA) | | OES BCS* |
| Glycerine (Total dust.) | 56-81-5 | 15 mg/m3 (PEL) | 02 2006 | OSHA Z1 |
| Glycerine (Respirable fraction.) | 56-81-5 | 5 mg/m3 (PEL) | 02 2006 | OSHA Z1 |
| Glycerine (Respirable fraction.) | 56-81-5 | 5 mg/m3 (TWA) | 1989 | OSHA Z1A |
| Glycerine (Total dust.) | 56-81-5 | 10 mg/m3 (TWA) | 1989 | OSHA Z1A |
| Glycerine (Total dust and mist.) | 56-81-5 | 10 mg/m3 (TWA) | 06 2008 | TN OEL |
| Glycerine (Respirable fraction and dust or fume.) | 56-81-5 | 5 mg/m3 (TWA) | 06 2008 | TN OEL |
| Glycerine (Particulate.) | 56-81-5 | 50ug/m3 (ST ESL) | 02 2013 | TX ESL |
| Glycerine (Particulate.) | 56-81-5 | 5ug/m3 (AN ESL) | 02 2013 | TX ESL |
| Glycerine (Vapor.) | 56-81-5 | 100ug/m3 (AN ESL) | 02 2013 | TX ESL |
| Glycerine (Vapor.) | 56-81-5 | 1000ug/m3 (ST ESL) | 02 2013 | TX ESL |

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

**BIOADVANCED SCIENCE-BASED
SOLUTIONS CRABGRASS KILLER FOR
LAWNS READY-TO-SPRAY**

Version 1.0 / USA
102000014567

6/11

Revision Date: 05/01/2017

| | |
|------------------------------------|---|
| Eye protection | Protective eyewear |
| 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 | white to beige |
| Physical State | liquid |
| Odour Threshold | no data available |
| pH | 7.0 - 9.0 at 100 % |
| Vapor Pressure | no data available |
| Vapor Density (Air = 1) | no data available |
| Density | 1.01 g/cm ³ at 20 °C |
| Evaporation rate | no data available |
| Boiling Point | no data available |
| Melting / Freezing Point | no data available |
| Water solubility | soluble |
| Minimum Ignition Energy | not applicable |
| Decomposition temperature | not applicable |
| Partition coefficient: n-octanol/water | no data available |
| Viscosity | no data available |
| Flash point | no data available |
| Autoignition temperature | no data available |
| Lower explosion limit | no data available |
| Upper explosion limit | no data available |
| Explosivity | not applicable |

**BIOADVANCED SCIENCE-BASED
SOLUTIONS CRABGRASS KILLER FOR
LAWNS READY-TO-SPRAY**

Version 1.0 / USA
102000014567

7/11

Revision Date: 05/01/2017

SECTION 10: STABILITY AND REACTIVITY

Reactivity

| | |
|---|--|
| Thermal decomposition | not applicable |
| Chemical stability | Stable under recommended storage conditions. |
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. |
| Conditions to avoid | freezing |
| Incompatible materials | no data available |
| Hazardous decomposition products | No decomposition products expected under normal conditions of use. |

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes Eye contact, Skin contact, Ingestion, Inhalation

Immediate Effects

Eye Moderate eye irritation. Do not get in eyes.

Skin Moderate skin irritation.

Ingestion Harmful if swallowed.

Information on toxicological effects

Acute oral toxicity LD50 (male/female combined rat) > 5,000 mg/kg

Acute inhalation toxicity LC50 (male/female combined rat) > 10.7 mg/l
Exposure time: 4 h
Determined in the form of liquid aerosol.

LC50 (male/female combined rat) > 20 mg/l
Exposure time: 1 h
Determined in the form of liquid aerosol.
Extrapolated from the 4 hr LC50.

Acute dermal toxicity LD50 (male/female combined rat) > 4,000 mg/kg

Skin irritation Slight irritation (rabbit)

Eye irritation Moderate eye irritation. (rabbit)

Sensitisation Non-sensitizing. (guinea pig)

Assessment repeated dose toxicity

Assessment Mutagenicity

**BIOADVANCED SCIENCE-BASED
SOLUTIONS CRABGRASS KILLER FOR
LAWNS READY-TO-SPRAY**

Version 1.0 / USA
102000014567

8/11
Revision Date: 05/01/2017

Assessment Carcinogenicity

ACGIH

Naphthalene 91-20-3 Group A4

NTP

Naphthalene 91-20-3

IARC

Naphthalene 91-20-3 Overall evaluation: 2B

OSHA

None.

Assessment toxicity to reproduction

Assessment developmental toxicity

Further information

Acute toxicity studies have been bridged from a similar formulation(s).
The non-acute information pertains to the active ingredient(s).

SECTION 12: ECOLOGICAL INFORMATION

| | |
|----------------------------------|---|
| Biodegradability | Fenoxaprop-P-ethyl: ; not rapidly biodegradable |
| Koc | Fenoxaprop-P-ethyl: Koc: 11354 |
| Bioaccumulation | Fenoxaprop-P-ethyl: Bioconcentration factor (BCF) 338; Does not bioaccumulate. |
| Mobility in soil | Fenoxaprop-P-ethyl: Immobile in soil |
| Environmental precautions | Apply this product as specified on the label. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites. Do not apply when weather conditions favor runoff or drift. Drift or runoff from treated areas may adversely affect non-target plants. Do not allow to get into surface water, drains and ground water. 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. |

**BIOADVANCED SCIENCE-BASED
SOLUTIONS CRABGRASS KILLER FOR
LAWNS READY-TO-SPRAY**

Version 1.0 / USA
102000014567

9/11

Revision Date: 05/01/2017

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

| | |
|-------------------------------|--|
| Product | 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. Never place unused product down any indoor or outdoor drain. |
| Contaminated packaging | Do not re-use empty containers. Place empty container in trash. 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, NAPHTHALENE) |
| RQ | Reportable Quantity is reached with 28,571 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 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 SOLUTION) |

This transportation information is not intended to convey all specific regulatory information relating to this

**BIOADVANCED SCIENCE-BASED
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LAWNS READY-TO-SPRAY**

Version 1.0 / USA
102000014567

10/11

Revision Date: 05/01/2017

product. It does not address regulatory variations due to package size or special transportation requirements.

SECTION 15: REGULATORY INFORMATION

EPA Registration No. 92564-32

US Federal Regulations

TSCA list

Naphthalene 91-20-3

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

Naphthalene 91-20-3 25,000lbs

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 does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients

Naphthalene 91-20-3 CA, CT, IL, MN, NJ, RI

Canadian Regulations

Canadian Domestic Substance List

None.

Environmental

CERCLA

Naphthalene 91-20-3 100 lbs

Clean Water Section 307 Priority Pollutants

Naphthalene 91-20-3

Safe Drinking Water Act Maximum Contaminant Levels

Naphthalene 91-20-3

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:



**BIOADVANCED SCIENCE-BASED
SOLUTIONS CRABGRASS KILLER FOR
LAWNS READY-TO-SPRAY**

Version 1.0 / USA
102000014567

11/11

Revision Date: 05/01/2017

Signal word: Caution!

Hazard statements: Hazard to humans and domestic animals.
Harmful if swallowed.
Moderate eye irritation.
Moderate skin irritation.
Avoid contact with skin, eyes and clothing.

SECTION 16: OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

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

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

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

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

Reason for Revision: New company name and new EPA registration number

Date of Previous Revision: N/A

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 trademarks of SBM Life Science Corp.