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

Product identifier: BIOADVANCED SCIENCE-BASED SOLUTIONS BERMUDAGRASS CONTROL FOR LAWNS READY-TO-SPRAY
Trade name: BERMUDAGRASS CONTROL FOR LAWNS READY-TO-SPRAY
Product code: 102000014567
SDS Number: 92564-32
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): 1-877-229-3763 (24 hours/day)
Product Information Telephone Number: 1-877-229-3724
SDS Information or Request: SDS@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.
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Component Name</th>
<th>CAS-No.</th>
<th>Concentration % by weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fenoxaprop-P-ethyl</td>
<td>71283-80-2</td>
<td>0.41</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>0.35</td>
</tr>
</tbody>
</table>

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.
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
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

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>15 ppm (STEL)</td>
<td>02 2012</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>10 ppm (TWA)</td>
<td>02 2012</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>10 ppm (TWA)</td>
<td>02 2013</td>
<td>ACGIH NIC</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>50 mg/m3/10 ppm (REL)</td>
<td>2010</td>
<td>NIOSH</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>75 mg/m3/15 ppm (STEL)</td>
<td>2010</td>
<td>NIOSH</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>50 mg/m3/10 ppm (PEL)</td>
<td>02 2006</td>
<td>OSHA Z1</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>75 mg/m3/15 ppm (STEL)</td>
<td>1989</td>
<td>OSHA Z1A</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>50 mg/m3/10 ppm (STEL)</td>
<td>1989</td>
<td>OSHA Z1A</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>50 mg/m3/10 ppm (TWA)</td>
<td>06 2008</td>
<td>TN OEL</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>50 mg/m3/10 ppm (TWA)</td>
<td>06 2008</td>
<td>TN OEL</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>75 mg/m3/15 ppm (STEL)</td>
<td>06 2008</td>
<td>TN OEL</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>38ppb (ST ESL)</td>
<td>02 2013</td>
<td>TX ESL</td>
</tr>
</tbody>
</table>
### Naphthalene

<table>
<thead>
<tr>
<th>Compound</th>
<th>CAS Number</th>
<th>Concentration</th>
<th>Date</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>50ug/m3 (AN ESL)</td>
<td>07 2011</td>
<td>TX ESL</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>10ppb (AN ESL)</td>
<td>07 2011</td>
<td>TX ESL</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>200ug/m3 (ST ESL)</td>
<td>02 2013</td>
<td>TX ESL</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>75mg/m3/15 ppm (STEL)</td>
<td>08 2010</td>
<td>US CA OEL</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>50mg/m3/10 ppm (TWA PEL)</td>
<td>08 2010</td>
<td>US CA OEL</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>10 ppm (TWA)</td>
<td></td>
<td>OES BCS*</td>
</tr>
</tbody>
</table>

### Glycerine

<table>
<thead>
<tr>
<th>Compound</th>
<th>CAS Number</th>
<th>Concentration</th>
<th>Date</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerine (Total dust.)</td>
<td>56-81-5</td>
<td>15mg/m3 (PEL)</td>
<td>02 2006</td>
<td>OSHA Z1</td>
</tr>
<tr>
<td>Glycerine (Respirable fraction.)</td>
<td>56-81-5</td>
<td>5mg/m3 (PEL)</td>
<td>02 2006</td>
<td>OSHA Z1</td>
</tr>
<tr>
<td>Glycerine (Respirable fraction.)</td>
<td>56-81-5</td>
<td>5mg/m3 (TWA)</td>
<td>1989</td>
<td>OSHA Z1A</td>
</tr>
<tr>
<td>Glycerine (Total dust.)</td>
<td>56-81-5</td>
<td>10mg/m3 (TWA)</td>
<td>1989</td>
<td>OSHA Z1A</td>
</tr>
<tr>
<td>Glycerine (Total dust and mist.)</td>
<td>56-81-5</td>
<td>10mg/m3 (TWA)</td>
<td>06 2008</td>
<td>TN OEL</td>
</tr>
<tr>
<td>Glycerine (Respirable fraction and dust or fume.)</td>
<td>56-81-5</td>
<td>5mg/m3 (TWA)</td>
<td>06 2008</td>
<td>TN OEL</td>
</tr>
<tr>
<td>Glycerine (Particulate.)</td>
<td>56-81-5</td>
<td>50ug/m3 (ST ESL)</td>
<td>02 2013</td>
<td>TX ESL</td>
</tr>
<tr>
<td>Glycerine (Particulate.)</td>
<td>56-81-5</td>
<td>5ug/m3 (AN ESL)</td>
<td>02 2013</td>
<td>TX ESL</td>
</tr>
<tr>
<td>Glycerine (Vapor.)</td>
<td>56-81-5</td>
<td>100ug/m3 (AN ESL)</td>
<td>02 2013</td>
<td>TX ESL</td>
</tr>
<tr>
<td>Glycerine (Vapor.)</td>
<td>56-81-5</td>
<td>1000ug/m3 (ST ESL)</td>
<td>02 2013</td>
<td>TX ESL</td>
</tr>
</tbody>
</table>

**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
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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>white to beige</td>
</tr>
<tr>
<td>Physical State</td>
<td>liquid</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>no data available</td>
</tr>
<tr>
<td>pH</td>
<td>7.0 - 9.0 at 100%</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>no data available</td>
</tr>
<tr>
<td>Vapor Density (Air = 1)</td>
<td>no data available</td>
</tr>
<tr>
<td>Density</td>
<td>1.01 g/cm³ at 20 °C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>no data available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>no data available</td>
</tr>
<tr>
<td>Melting / Freezing Point</td>
<td>no data available</td>
</tr>
<tr>
<td>Water solubility</td>
<td>soluble</td>
</tr>
<tr>
<td>Minimum Ignition Energy</td>
<td>not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>not applicable</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>no data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>no data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>no data available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>no data available</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>no data available</td>
</tr>
<tr>
<td>Explosivity</td>
<td>not applicable</td>
</tr>
</tbody>
</table>
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
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.
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 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
States Regulatory Reporting
CA Prop65
This product contains a chemical known to the State of California to cause cancer.
Naphthalene 91-20-3 25,000lbs US

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

US State Right-To-Know
Ingredients Naphthalene

Canadian Regulations
Canadian Domestic Substance List
91-20-3 CA, CT, IL, MN, NJ, RI
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:
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

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

Reason for Revision: Update emergency contact and product information number.

Date of Previous Revision: 09/13/2018

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 trademarks of SBM Life Science Corp.