

**BIOADVANCED SCIENCE-BASED
SOLUTIONS 3-IN-1 WEED & FEED FOR
SOUTHERN LAWNS**

Version 1.0 / USA
102000029740

1/11

Revision Date: 01/31/2019

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

Product identifier

Trade name BIOADVANCED SCIENCE-BASED SOLUTIONS 3-IN-1 WEED &
FEED FOR SOUTHERN LAWNS

Product code

SDS Number 102000029740

EPA Registration No. 92564-61

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

Use Herbicide, Fertilizer

Restrictions on use See product label for restrictions.

Information on supplier

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

Responsible Department Email: SDS@sbm-company.com

Emergency telephone no.

**Emergency Telephone
Number (24hr/ 7 days)** 1-877-229-3763

**Product Information
Telephone Number** 1-877-229-3724

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

Acute toxicity(Inhalation): Category 4



Signal word: Warning

Hazard statements

Harmful if inhaled.

Precautionary statements

Avoid breathing dust.

Use only outdoors or in a well-ventilated area.

**BIOADVANCED SCIENCE-BASED
SOLUTIONS 3-IN-1 WEED & FEED FOR
SOUTHERN LAWNS**

Version 1.0 / USA
102000029740

2/11
Revision Date: 01/31/2019

IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER/doctor/physician if you feel unwell.

Other hazards

No other hazards known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Concentration % by weight
Indaziflam	950782-86-2	0.027
Penoxsulam	219714-96-2	0.041
Dicamba	1918-00-9	0.088
Urea	57-13-6	77.06
Potassium sulfate	7778-80-5	6.5
Sulfur	7704-34-9	3.8

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 No symptoms known or expected.

Indication of any immediate medical attention and special treatment needed

Treatment Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

**BIOADVANCED SCIENCE-BASED
SOLUTIONS 3-IN-1 WEED & FEED FOR
SOUTHERN LAWNS**

Version 1.0 / USA
102000029740

3/11
Revision Date: 01/31/2019

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable None known.

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 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. Use appropriate extinguishing media for material that is supplying fuel. Do not allow run-off from fire fighting to enter drains or water courses.

Flash point not applicable

Autoignition temperature no data available

Lower explosion limit not applicable

Upper explosion limit not applicable

Explosivity no data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

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

Methods and materials for containment and cleaning up

Methods for cleaning up Sweep up or vacuum up spillage and collect in suitable container for disposal. 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 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.

**BIOADVANCED SCIENCE-BASED
SOLUTIONS 3-IN-1 WEED & FEED FOR
SOUTHERN LAWNS**

Version 1.0 / USA
102000029740

4/11

Revision Date: 01/31/2019

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

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

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.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Dicamba	1918-00-9	50ug/m3 (ST ESL)	03 2014	TX ESL
Dicamba	1918-00-9	5ug/m3 (AN ESL)	03 2014	TX ESL
Urea	57-13-6	5ug/m3 (AN ESL)	03 2014	TX ESL
Urea	57-13-6	50ug/m3 (ST ESL)	03 2014	TX ESL
Urea (Total particulate.)	57-13-6	10 mg/m3 (TWA)	2010	WEEL
Sodium aluminium silicate (Respirable fraction.)	1344-00-9	1 mg/m3 (TWA)	02 2012	ACGIH
Sodium aluminium silicate	1344-00-9	2 mg/m3 (REL)	2010	NIOSH
Sodium aluminium silicate	1344-00-9	2 mg/m3	1989	OSHA Z1A

**BIOADVANCED SCIENCE-BASED
SOLUTIONS 3-IN-1 WEED & FEED FOR
SOUTHERN LAWNS**

Version 1.0 / USA
102000029740

5/11

Revision Date: 01/31/2019

		(TWA)		
Sodium aluminium silicate	1344-00-9	2 mg/m3 (TWA)	06 2008	TN OEL
Sodium aluminium silicate	1344-00-9	5ug/m3 (AN ESL)	03 2014	TX ESL
Sodium aluminium silicate	1344-00-9	50ug/m3 (ST ESL)	03 2014	TX ESL
Sodium aluminium silicate	1344-00-9	2 mg/m3 (TWA PEL)	08 2010	US CA OEL
Sulfur	7704-34-9	5ug/m3 (AN ESL)	03 2014	TX ESL
Sulfur	7704-34-9	50ug/m3 (ST ESL)	03 2014	TX ESL
Calcium carbonate (Respirable.)	1317-65-3	5 mg/m3 (REL)	2010	NIOSH
Calcium carbonate (Total)	1317-65-3	10 mg/m3 (REL)	2010	NIOSH
Calcium carbonate (Respirable fraction.)	1317-65-3	5 mg/m3 (PEL)	02 2006	OSHA Z1
Calcium carbonate (Total dust.)	1317-65-3	15 mg/m3 (PEL)	02 2006	OSHA Z1
Calcium carbonate (Respirable fraction.)	1317-65-3	5 mg/m3 (TWA)	1989	OSHA Z1A
Calcium carbonate (Total dust.)	1317-65-3	15 mg/m3 (TWA)	1989	OSHA Z1A
Calcium carbonate (Total dust.)	1317-65-3	15 mg/m3 (TWA)	06 2008	TN OEL
Calcium carbonate (Respirable fraction.)	1317-65-3	5 mg/m3 (TWA)	06 2008	TN OEL
Calcium carbonate	1317-65-3	5ug/m3 (AN ESL)	03 2014	TX ESL
Calcium carbonate	1317-65-3	50ug/m3 (ST ESL)	03 2014	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

**BIOADVANCED SCIENCE-BASED
SOLUTIONS 3-IN-1 WEED & FEED FOR
SOUTHERN LAWNS**

Version 1.0 / USA
102000029740

6/11
Revision Date: 01/31/2019

	recommendations.
Hand protection	Chemical resistant nitrile rubber gloves
Eye protection	Safety glasses with side-shields
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	multicolored
Physical State	granular
Odor	musty
Odour Threshold	no data available
pH	7 - 9 at 10 %
Vapor Pressure	not applicable
Vapor Density (Air = 1)	not applicable
Bulk density	55 - 65 lb/ft ³
Evaporation rate	not applicable
Boiling Point	not applicable
Melting / Freezing Point	not applicable
Water solubility	soluble
Minimum Ignition Energy	not applicable
Decomposition temperature	no data available
Partition coefficient: n-octanol/water	not applicable
Viscosity	not applicable
Flash point	not applicable
Autoignition temperature	no data available
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Explosivity	no data available

**BIOADVANCED SCIENCE-BASED
SOLUTIONS 3-IN-1 WEED & FEED FOR
SOUTHERN LAWNS**

Version 1.0 / USA
102000029740

7/11
Revision Date: 01/31/2019

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Thermal decomposition	no data available
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	no data available
Incompatible materials	Acids
Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes	Skin Absorption, Ingestion, Eye contact, Inhalation
Immediate Effects	
Eye	Moderate eye irritation may occur.
Skin	Harmful if absorbed through skin.
Ingestion	Harmful if swallowed.
Inhalation	Dusts may cause upper respiratory tract irritation, coughing.
Information on toxicological effects	
Acute oral toxicity	LD50 (rat) > 2,000 mg/kg
Acute inhalation toxicity	LC50 (rat) > 2.09 mg/l Exposure time: 4 h Determined in the form of dust. highest concentration tested No deaths
Acute dermal toxicity	LD50 (rat) > 2,000 mg/kg
Skin irritation	Slight irritation (rabbit)
Eye irritation	Mild eye irritation. (rabbit)
Sensitisation	Non-sensitizing. (guinea pig)

Assessment repeated dose toxicity

Indaziflam caused neurobehavioral effects and/or neuropathological changes in subchronic studies in rats and dogs.

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

**BIOADVANCED SCIENCE-BASED
SOLUTIONS 3-IN-1 WEED & FEED FOR
SOUTHERN LAWNS**

Version 1.0 / USA
102000029740

8/11
Revision Date: 01/31/2019

Assessment mutagenicity

Indaziflam was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.
Dicamba was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Indaziflam was not carcinogenic in lifetime feeding studies in rats and mice.
Dicamba was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH

None.

NTP

None.

IARC

None.

OSHA

None.

Assessment toxicity to reproduction

Indaziflam caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Indaziflam is related to parental toxicity.
Dicamba did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

Indaziflam did not cause developmental toxicity in rats and rabbits.
Dicamba did not cause developmental toxicity in rats and rabbits.

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

Toxicity to fish	no data available
Toxicity to aquatic invertebrates	no data available
Toxicity to aquatic plants	no data available
Biodegradability	Indaziflam: not rapidly biodegradable Dicamba: not rapidly biodegradable
Koc	Indaziflam: Koc: 496 Dicamba: Koc: 5.1

**BIOADVANCED SCIENCE-BASED
SOLUTIONS 3-IN-1 WEED & FEED FOR
SOUTHERN LAWNS**

Version 1.0 / USA
102000029740

9/11
Revision Date: 01/31/2019

Bioaccumulation	Indaziflam: Bioconcentration factor (BCF) 66 Does not bioaccumulate. Dicamba: Bioconcentration factor (BCF) 15 Does not bioaccumulate.
Mobility in soil	Indaziflam: Moderately mobile in soils Dicamba: Highly mobile in soils
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. Do not apply when weather conditions favor runoff or drift. Apply this product as specified on the label.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product	Dispose of contents/container in accordance with local regulation. Never place unused product down any indoor or outdoor drain.
Contaminated packaging	Do not re-use empty containers. 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.
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

According to national and international transport regulations this material is not classified as dangerous goods / hazardous material.

SECTION 15: REGULATORY INFORMATION

EPA Registration No.	92564-61
US Federal Regulations	
TSCA list	
Urea	57-13-6
Potassium sulfate	7778-80-5
Sulfur	7704-34-9
US Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)	
None.	

**BIOADVANCED SCIENCE-BASED
SOLUTIONS 3-IN-1 WEED & FEED FOR
SOUTHERN LAWNS**

Version 1.0 / USA
102000029740

10/11
Revision Date: 01/31/2019

SARA Title III - Section 302 - Notification and Information

None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

Dicamba 1918-00-9 1.0%

US States Regulatory Reporting

CA Prop65

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

Dicamba	1918-00-9	CA, CT, IL, NJ, RI
Urea	57-13-6	MN
Sulfur	7704-34-9	CA, CT

Canadian Regulations

Canadian Domestic Substance List

None.

Environmental

CERCLA

Dicamba 1918-00-9

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

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: Harmful if swallowed or absorbed through skin.
Moderate eye irritation.
Avoid contact with skin, eyes and clothing.
Remove and wash contaminated clothing before re-use.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms

49CFR	Code of Federal Regulations, Title 49
ACGIH	US. ACGIH Threshold Limit Values
CAS-Nr.	Chemical Abstracts Service number

**BIOADVANCED SCIENCE-BASED
SOLUTIONS 3-IN-1 WEED & FEED FOR
SOUTHERN LAWNS**

Version 1.0 / USA
102000029740

11/11
Revision Date: 01/31/2019

EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
IARC	US. IARC Monographs on Occupational Exposures to Chemical Agents
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 - 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: Update emergency contact and product information number.

Date of Previous Revision: 05/01/2017

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.